LENS DATA INFORMATION SHEET

(Reference MIL-STD-150A for definition of terms and methods of measurement)

DATE 15 Sept. 1967			
TYPE (MIL-STD-150A) Type I Aerial Reconnaissance		NAME Paxar	
FOCAL LENGTH 1.5 in.	RELATIVE APERTURE f/4.5	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Pacific Optical Corp.
STOCK NO. Pacific Optical P/N 32757	SPECIFICATION NO.	STATUS	

GENERAL DESCRIPTION

CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 1.5 in. (38 mm)	TRANSMITTANCE
BACK FOCAL DISTANCE .341 in.	COLOR CORRECTION Visible
FRONT VERTEX BACK FOCAL DISTANCE 4.11 in.	DISTORTION *(Maximum)* .050 mm at 60°
FLANGE FOCAL DISTANCE 1.203 in.	LENS CELL DIAMETER *(Maximum)* 7.065 in.
SEMI-FIELD ANGLE 60°	OVERALL LENGTH 4.0 in.
RELATIVE APERTURE f/4.5	WEIGHT

REMARKS:

Used on the following aircraft cameras: Maurer 500

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
1.5 in.	f/4.5	4.5 in. x 4.5 in.	Pacific Optical Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45	50	55	60					

FILM Plus X TARGET CONTRAST High FILTER W-12

RADIAL	50	45	44	34	26	23	22	21	24	36	36	20	14					
TANGENTIAL	50	45	31	21	16	15	13	13	17	20	15	13	14					

AWAR 21 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

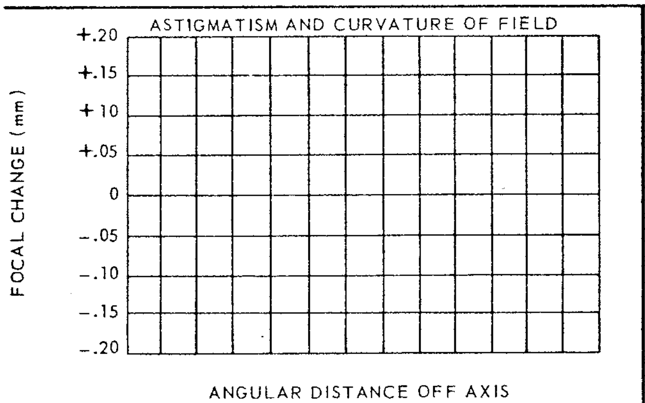
FILM ______ TARGET CONTRAST ______ FILTER ______

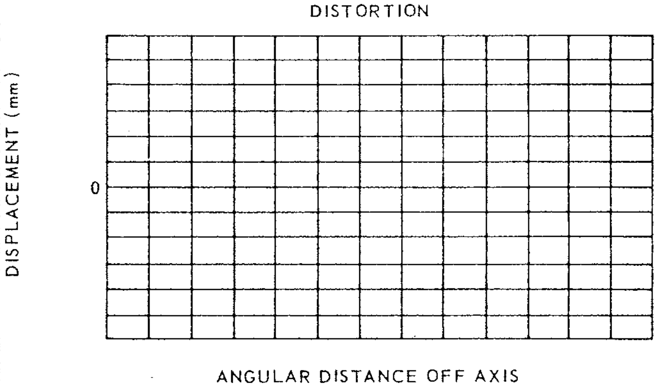
RADIAL																		
TANGENTIAL																		

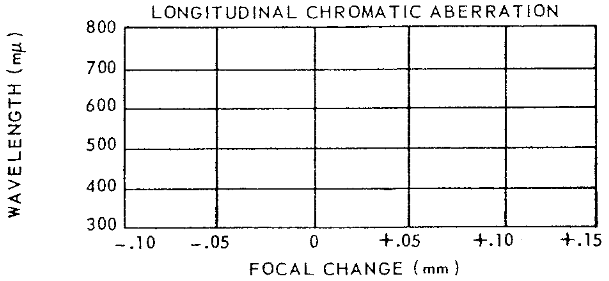
AWAR ______ L/mm

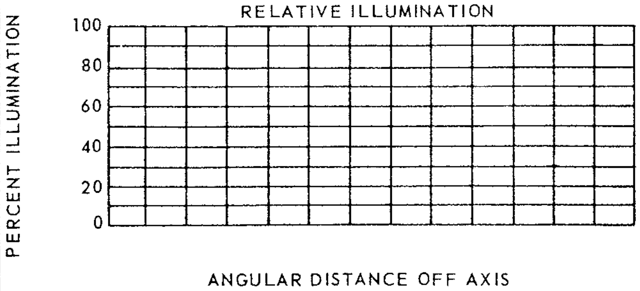
VISUAL ______ TARGET CONTRAST ______ FILTER ______

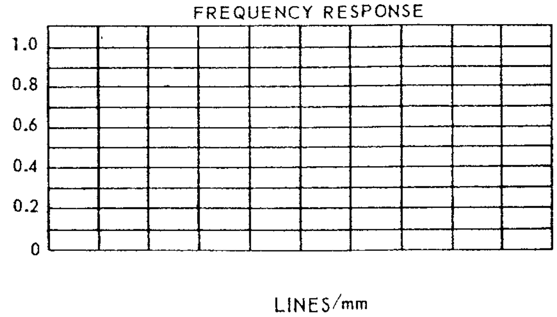
RADIAL																		
TANGENTIAL																		

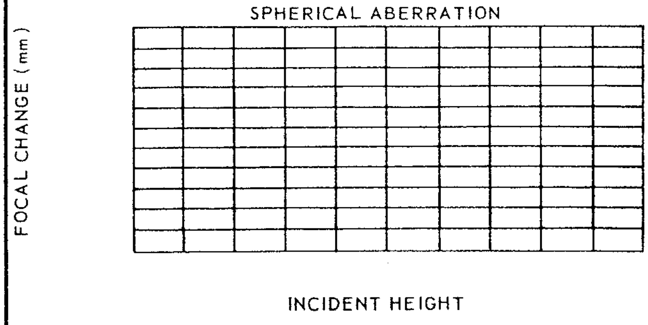

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

LENS DATA INFORMATION SHEET

(Reference MIL–STD–150A for definition of terms and methods of measurement)

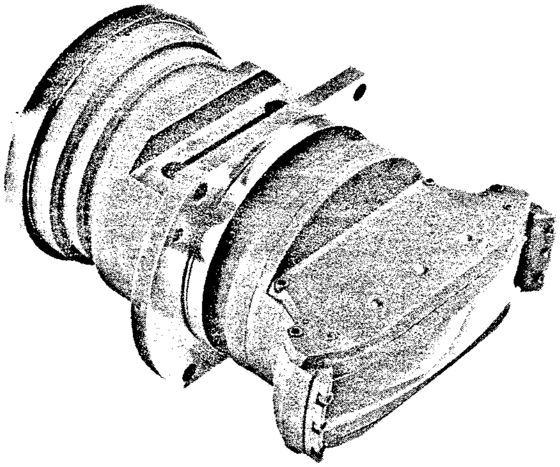
DATE
15 Sept. 1967

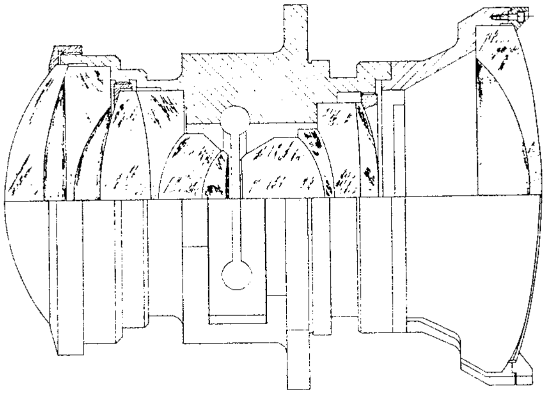
TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME Spinner

FOCAL LENGTH 3.0 in.	RELATIVE APERTURE f/2.8	FORMAT 4.5 in. x .5 in. slit	MANUFACTURER Fairchild Space & Defense Sys - El Segundo

STOCK NO. Fairchild P/N 143-100	SPECIFICATION NO.	STATUS Production

GENERAL DESCRIPTION





CHARACTERISTICS

EQUIVALENT FOCAL LENGTH	3.0 in. (75.78 mm)	TRANSMITTANCE	91%
BACK FOCAL DISTANCE	0.175 in.	COLOR CORRECTION	Equivalent to W-12
FRONT VERTEX BACK FOCAL DISTANCE	5.90 in.	DISTORTION *(Maximum)*	85 microns
FLANGE FOCAL DISTANCE	2.67 in.	LENS CELL DIAMETER *(Maximum)*	4.125 in.
SEMI-FIELD ANGLE	35°	OVERALL LENGTH	5.72 in.
RELATIVE APERTURE	f/2.8	WEIGHT	4 lbs 4 oz

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3.0 in.	f/2.8	4.5 in. x .5 in. slit	Fairchild Space & Defense Sys - El Segundo

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	10	20	30	35													

FILM 8401 TARGET CONTRAST High FILTER

RADIAL	90	88	84	53	37													
TANGENTIAL	90	87	68	22	15													

AWAR 68 L/mm

FILM SO-206 TARGET CONTRAST High FILTER

RADIAL	180	190	151	110	78													
TANGENTIAL	180	138	113	36	21													

AWAR 120 L/mm

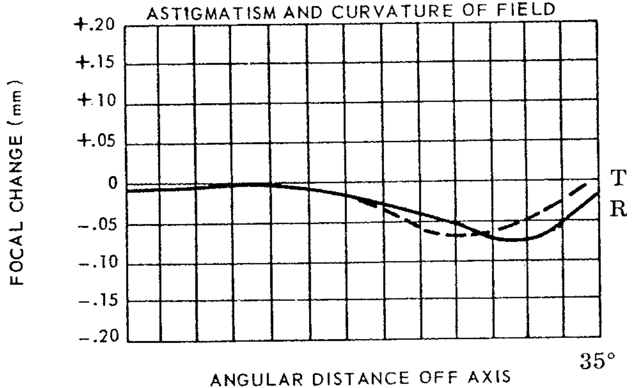
FILM TARGET CONTRAST FILTER

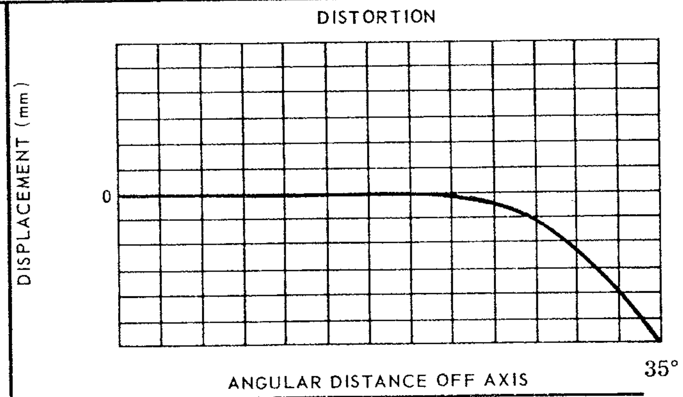
RADIAL																		
TANGENTIAL																		

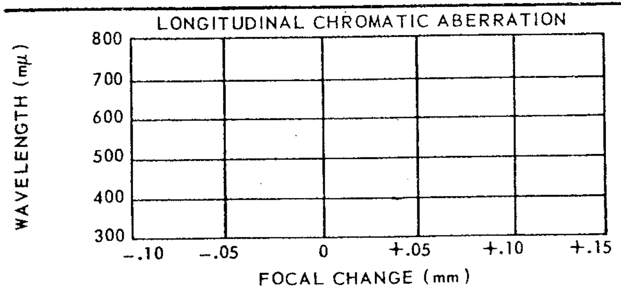
AWAR L/mm

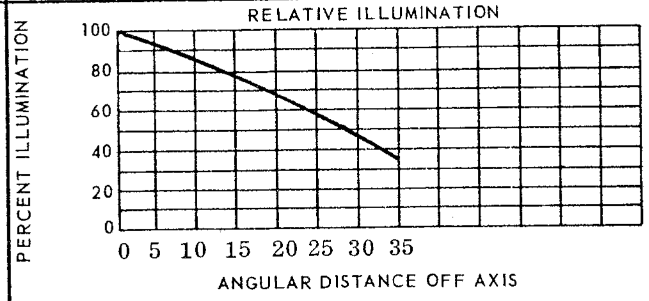
VISUAL TARGET CONTRAST FILTER

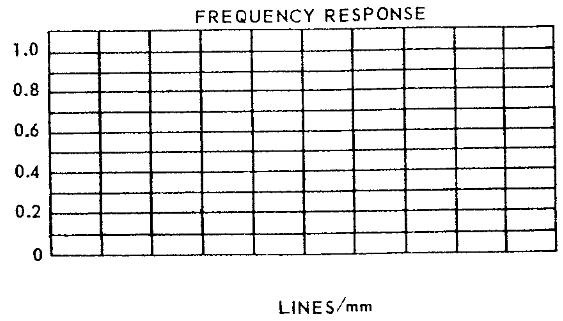
RADIAL																		
TANGENTIAL																		

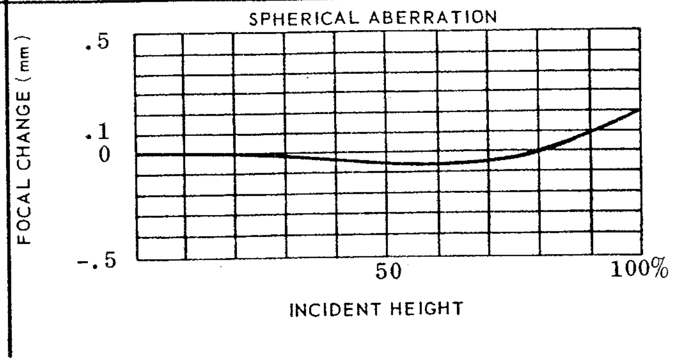












LENS DATA INFORMATION SHEET

(Reference MIL–STD–150A for definition of terms and methods of measurement)

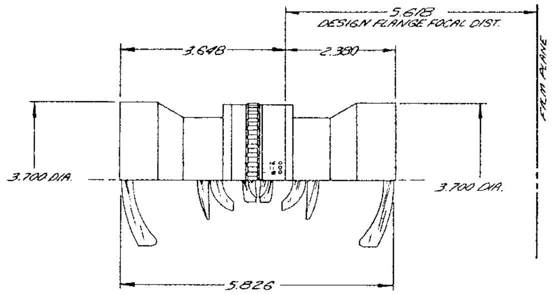
DATE	15 Sept. 1967

TYPE (MIL-STD-150A)	Type I Aerial Reconnaissance
NAME	Paxar

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3 in.	f/4.0	4.5 in. x 4.5 in.	Pacific Optical Corp.

STOCK NO.	SPECIFICATION NO.	STATUS
Pacific Optical P/N 32590		

GENERAL DESCRIPTION



CHARACTERISTICS

EQUIVALENT FOCAL LENGTH	3 in. (76.2 mm)	TRANSMITTANCE	67%
BACK FOCAL DISTANCE	3.288 in.	COLOR CORRECTION	4350-4680 Å
FRONT VERTEX BACK FOCAL DISTANCE	9.114 in.	DISTORTION *(Maximum)*	
FLANGE FOCAL DISTANCE	5.618 in.	LENS CELL DIAMETER *(Maximum)*	3.7 in.
SEMI-FIELD ANGLE	25°	OVERALL LENGTH	5.82 in.
RELATIVE APERTURE	f/4.0	WEIGHT	

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3 in.	f/4.0	4.5 in. x 4.5 in.	Pacific Optical Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	10	20	25														

FILM SO-213 TARGET CONTRAST High FILTER ______

RADIAL	82	67	67	46														
TANGENTIAL	74	39	67	28														

AWAR ______ L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

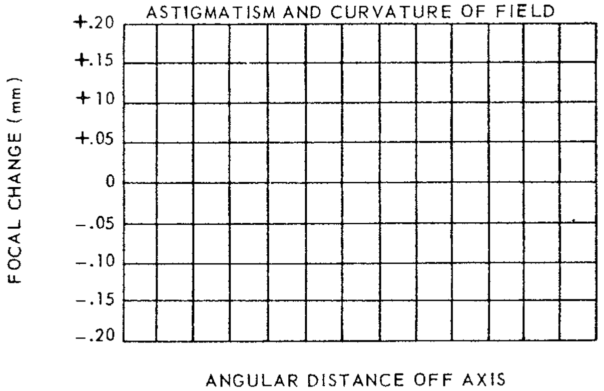
RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

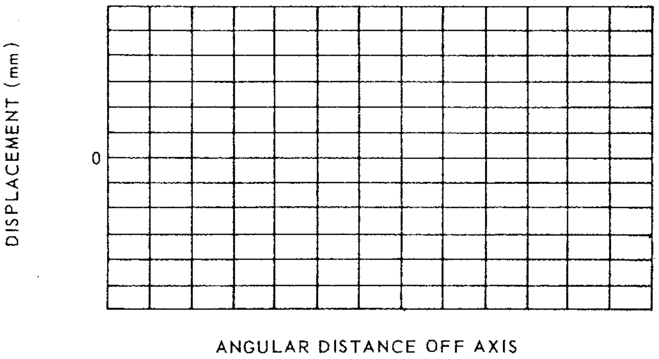
VISUAL ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

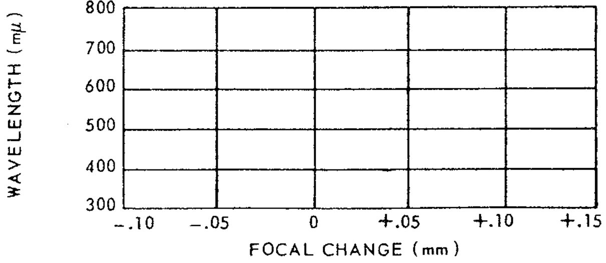
ASTIGMATISM AND CURVATURE OF FIELD



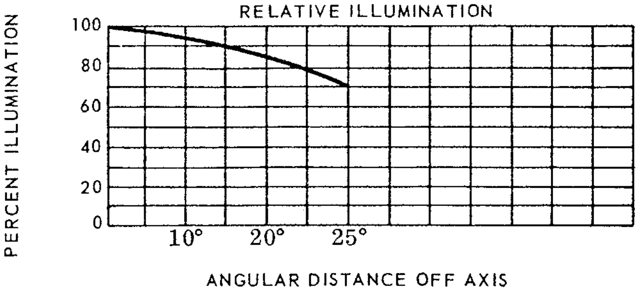
DISTORTION



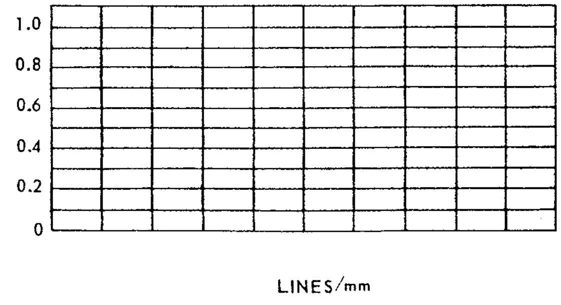
LONGITUDINAL CHROMATIC ABERRATION



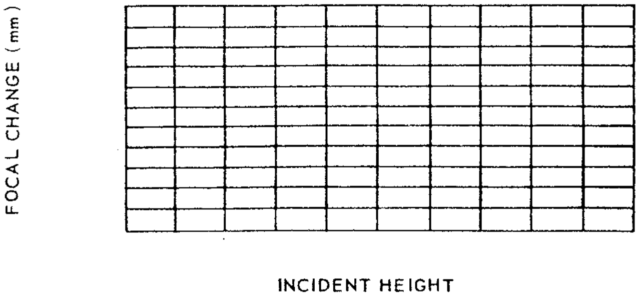
RELATIVE ILLUMINATION



FREQUENCY RESPONSE



SPHERICAL ABERRATION



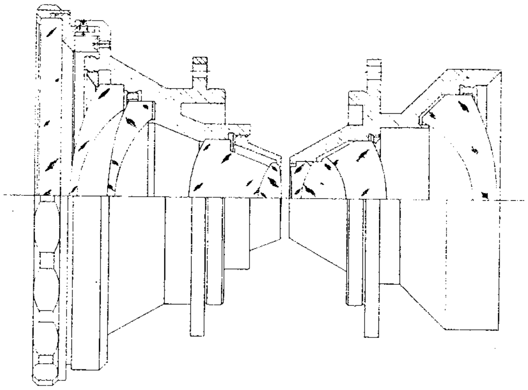
LENS DATA INFORMATION SHEET

(Reference MIL-STD-150A for definition of terms and methods of measurement)

DATE	15 Sept. 1967

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance		NAME Biogon	
FOCAL LENGTH 3 in.	RELATIVE APERTURE f/4.5	FORMAT 4.5 in. x 4.5 in. 4.5 in. Pan	MANUFACTURER Goerz Optical Co. Inc.
STOCK NO.	SPECIFICATION NO.	STATUS Special Order	

GENERAL DESCRIPTION



CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 3 in. (76.2 mm)	TRANSMITTANCE
BACK FOCAL DISTANCE 1.5 in.	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE 7.313 in.	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE	LENS CELL DIAMETER *(Maximum)* 5.32 in.
SEMI-FIELD ANGLE 45°	OVERALL LENGTH 6.37 in.
RELATIVE APERTURE f/4.5	WEIGHT

REMARKS:

Used on the following aircraft cameras: KA-56A, KA-56B, KA-65A, KA-68A, KA-40A, KA-30

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3 in.	f/4.5	4.5 in. x 4.5 in. 4.5 in. Pan	Goerz Optical Co. Inc.

Photographic Resolving Power in Lines /mm

FILM Super XX TARGET CONTRAST ______ FILTER ______

FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45								
RADIAL	50	50	49	48	39	33	33	37	25	14								
TANGENTIAL	50	50	41	41	34	29	30	25	22	10								

AWAR 32 L/mm

FILM SO 1213 TARGET CONTRAST ______ FILTER ______

FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45								
RADIAL	100	95	99	92	79	72	78	74	44	35								
TANGENTIAL	100	96	65	75	66	50	63	54	38	28								

AWAR 64 L/mm

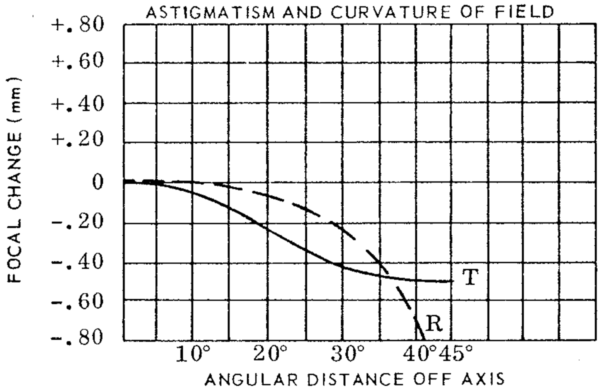
FILM Plus x TARGET CONTRAST High FILTER W-12

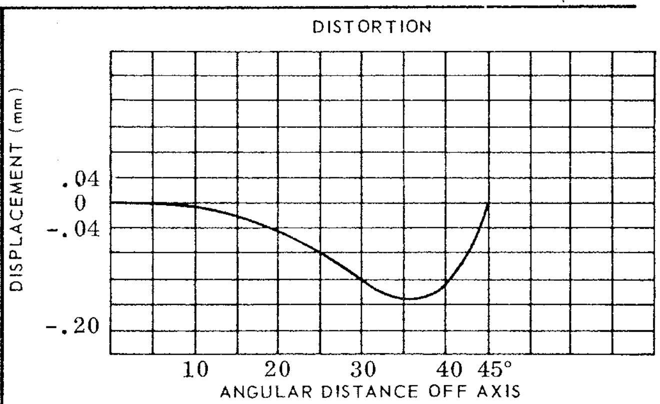
FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45								
RADIAL	60	53	52	51	50	50	52	50	30	19								
TANGENTIAL	53	50	46	44	39	39	33	29	19	17								

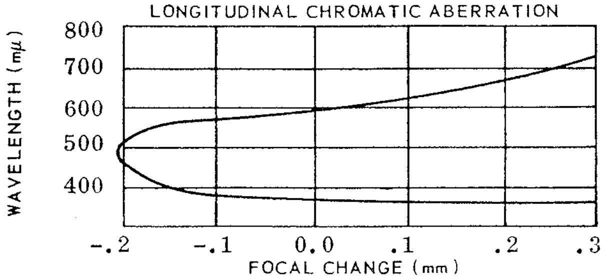
AWAR 40 L/mm

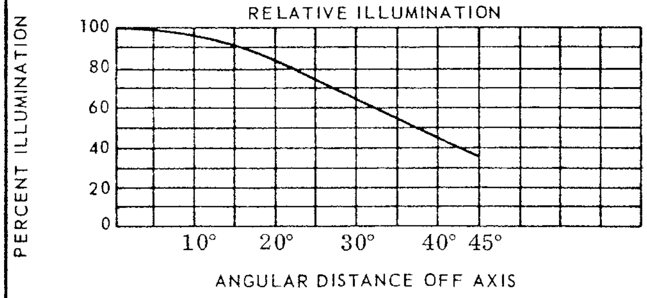
FILM Spectroscopic V-F TARGET CONTRAST ______ FILTER W-12

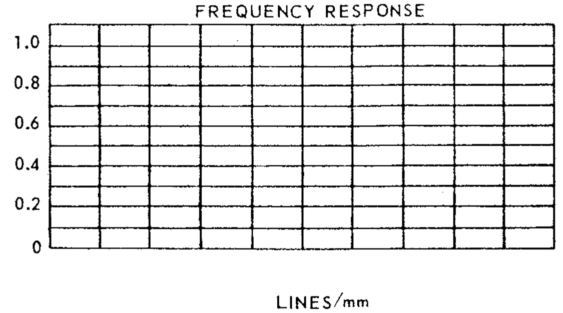
FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45								
RADIAL	76	76	76	76	76	76	89	76	76	39								
TANGENTIAL	76	76	76	63	53	53	46	39	39	27								

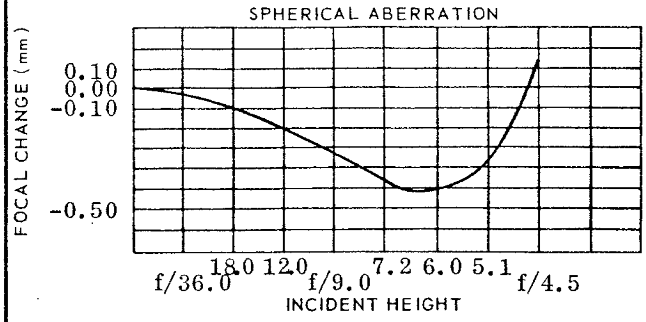

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

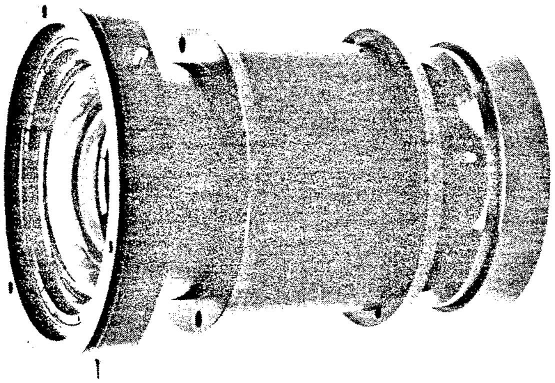
LENS DATA INFORMATION SHEET

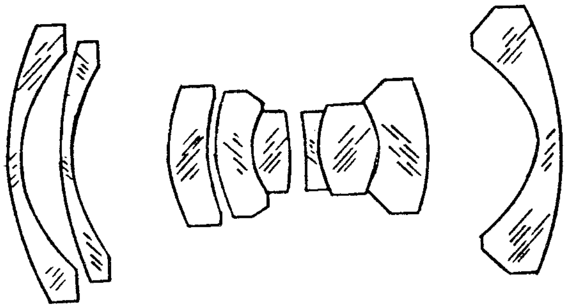
(Reference MIL–STD–150A for definition of terms and methods of measurement)

DATE
15 Sept. 1967

TYPE (MIL–STD–150A) Type I Aerial Reconnaissance		NAME Deltamar	
FOCAL LENGTH 3 in.	RELATIVE APERTURE f/4.5	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Aerojet Delft Corp.
STOCK NO. Aerojet Delft P/N 13AG	SPECIFICATION NO.	STATUS Production	

GENERAL DESCRIPTION





CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 3 in. (78.5 mm)	TRANSMITTANCE 65%
BACK FOCAL DISTANCE 1.53 in. (39.0 mm)	COLOR CORRECTION 4900-7000Å
FRONT VERTEX BACK FOCAL DISTANCE 7.46 in.	DISTORTION *(Maximum)* 0.8 mm
FLANGE FOCAL DISTANCE 3.31 in.	LENS CELL DIAMETER *(Maximum)* 4.93 in.
SEMI–FIELD ANGLE 45°	OVERALL LENGTH 7.79 in.
RELATIVE APERTURE f/4.5	WEIGHT 3.0 lbs

REMARKS:

Used on the following aircraft cameras: KS–72A

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3 in.	f/4.5	4.5 in. x 4.5 in.	Aerojet Delft Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45								

FILM Aerecon Plus X TARGET CONTRAST High FILTER W-12

RADIAL	85	80	79	73	64	55	50	42	37	33								
TANGENTIAL	61	67	63	63	60	50	42	35	25	18								

AWAR 48 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

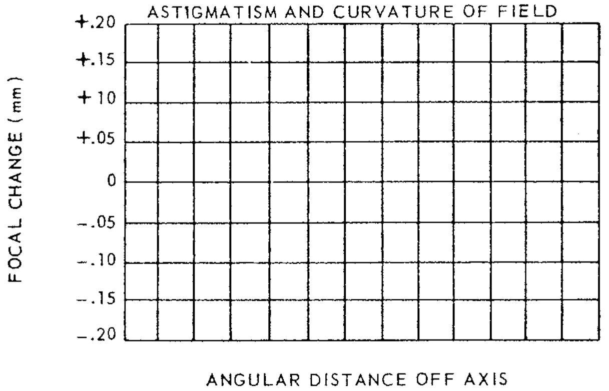
RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

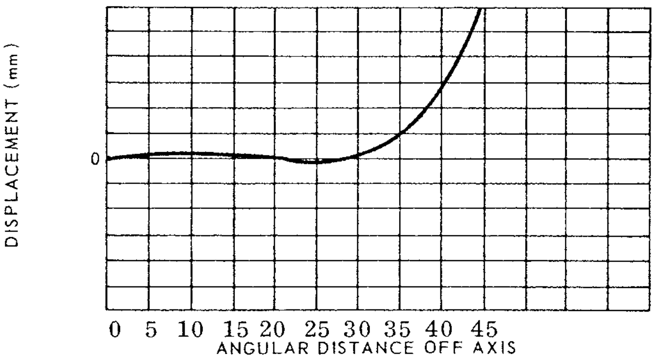
VISUAL ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

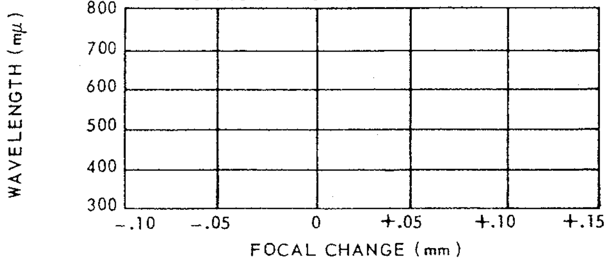
ASTIGMATISM AND CURVATURE OF FIELD



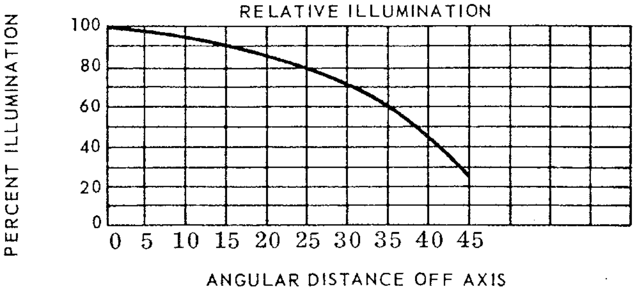
DISTORTION



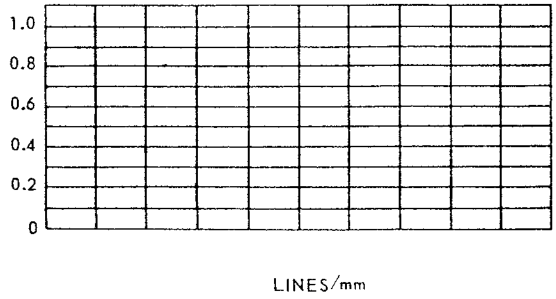
LONGITUDINAL CHROMATIC ABERRATION



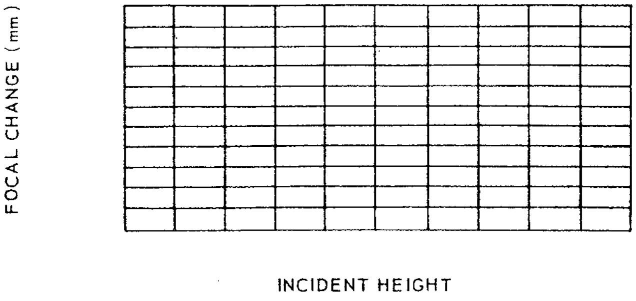
RELATIVE ILLUMINATION



FREQUENCY RESPONSE



SPHERICAL ABERRATION



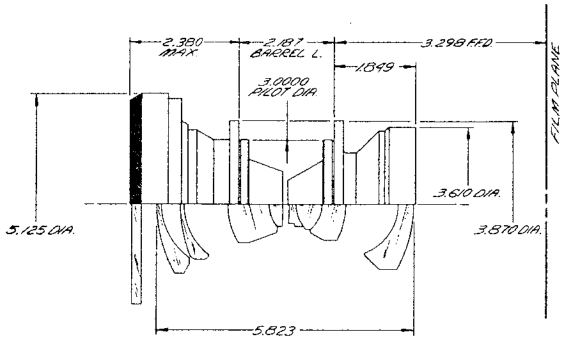
LENS DATA INFORMATION SHEET *(Reference MIL–STD–150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME Paxar (A)

FOCAL LENGTH 3 in.	RELATIVE APERTURE f/4.5	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Pacific Optical Corp.

STOCK NO. Pacific Optical P/N 32580	SPECIFICATION NO.	STATUS

GENERAL DESCRIPTION



CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 3 in. (76.2 mm)	TRANSMITTANCE 80%
BACK FOCAL DISTANCE 1.510 in.	COLOR CORRECTION 5461-6563 Å
FRONT VERTEX BACK FOCAL DISTANCE 7.325 in.	DISTORTION *(Maximum)* .125 mm at 30°
FLANGE FOCAL DISTANCE 3.298 in.	LENS CELL DIAMETER *(Maximum)* 3.610 in.
SEMI-FIELD ANGLE 45°	OVERALL LENGTH 6.416 in.
RELATIVE APERTURE f/4.5	WEIGHT

REMARKS:

See also Paxar (B) 3 in. f/4.5 4.5 in. x 4.5 in., Pacific Optical Corp.

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3 in.	f/4.5	4.5 in. x 4.5 in.	Pacific Optical Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45								

FILM Plus X Aerecon TARGET CONTRAST High FILTER W-12

RADIAL	40	44	49	54	42	32	30	46	38	15								
TANGENTIAL	40	44	43	41	39	36	37	38	29	17								

AWAR 39 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

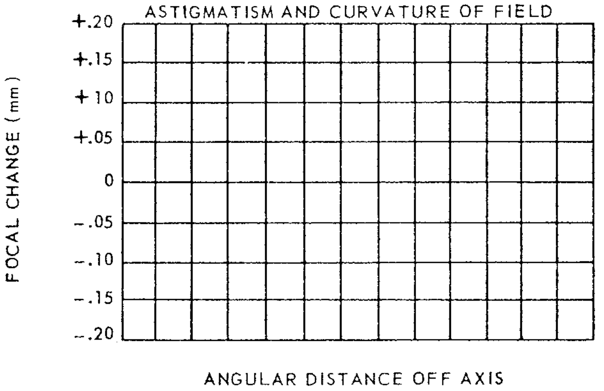
FILM ______ TARGET CONTRAST ______ FILTER ______

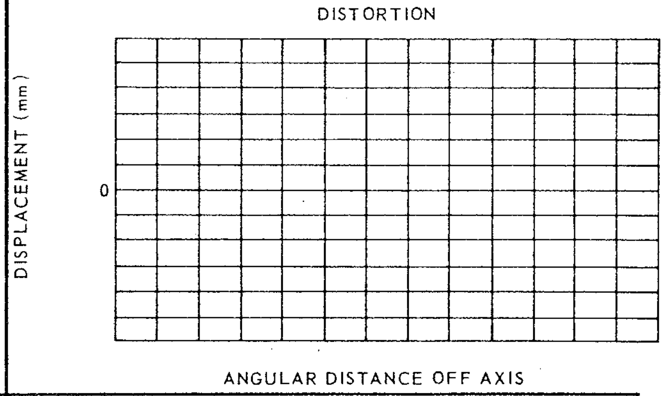
RADIAL																		
TANGENTIAL																		

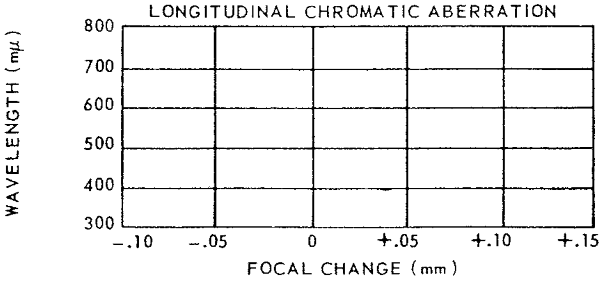
AWAR ______ L/mm

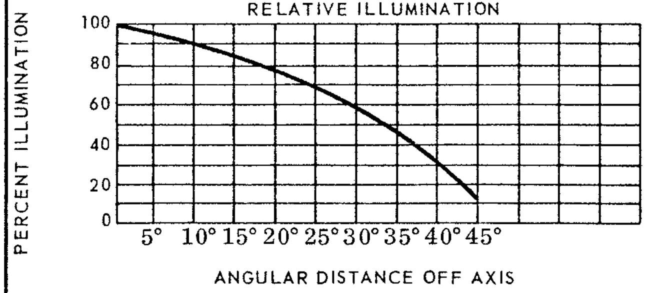
VISUAL ______ TARGET CONTRAST ______ FILTER ______

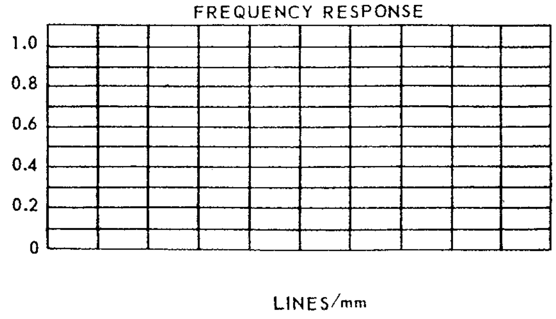
RADIAL																		
TANGENTIAL																		

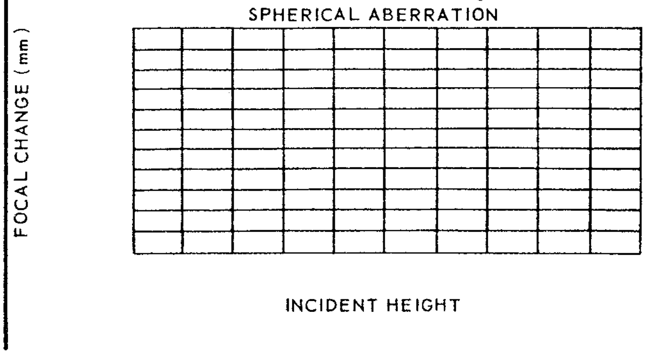

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

LENS DATA INFORMATION SHEET

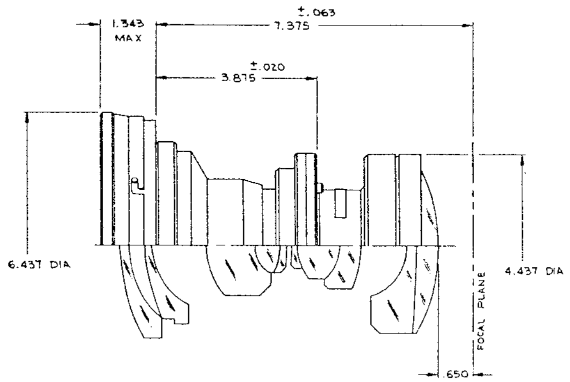
(Reference MIL–STD–150A for definition of terms and methods of measurement)

DATE 15 Sept. 1967	

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance		NAME Paxar (B)	
FOCAL LENGTH 3 in.	RELATIVE APERTURE f/4.5	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Pacific Optical Corp.

STOCK NO. Pacific Optical P/N 34420	SPECIFICATION NO.	STATUS

GENERAL DESCRIPTION



CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 3 in. (76.2 mm)	TRANSMITTANCE 75%
BACK FOCAL DISTANCE 0.650 in.	COLOR CORRECTION 5460-6563 Å
FRONT VERTEX BACK FOCAL DISTANCE 8.325 in.	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE 7.325 in.	LENS CELL DIAMETER *(Maximum)* 6.437 in.
SEMI-FIELD ANGLE 45°	OVERALL LENGTH 8.068 in.
RELATIVE APERTURE f/4.5	WEIGHT 8.5 lbs.

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3 in.	f/4.5	4.5 in. x 4.5 in.	Pacific Optical Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45								

FILM Plus X Aerecon TARGET CONTRAST 1000:1 FILTER

RADIAL	56	63	52	61	62	60	61	66	45	22								
TANGENTIAL	56	56	51	55	50	44	49	53	39	20								

AWAR 52 L/mm

FILM S.O. 243 TARGET CONTRAST 1000:1 FILTER

RADIAL	180	156	165	173	153	131	140	156	116	27								
TANGENTIAL	157	167	127	122	111	70	111	113	105	42								

AWAR 121 L/mm

FILM TARGET CONTRAST FILTER

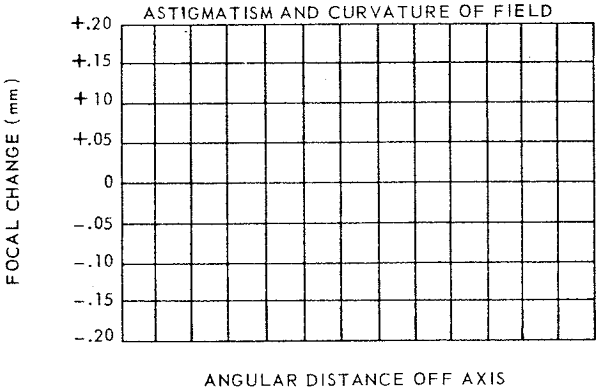
RADIAL																		
TANGENTIAL																		

AWAR L/mm

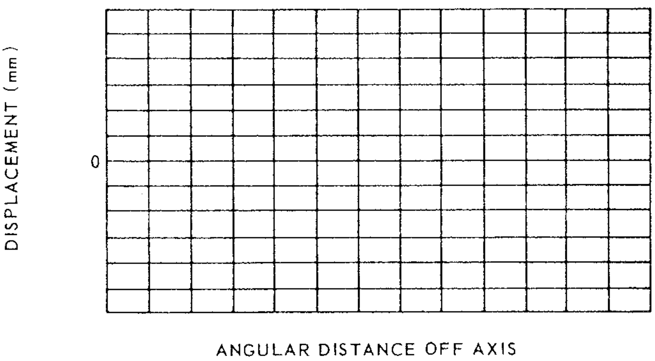
VISUAL TARGET CONTRAST 1000:1 FILTER

RADIAL	358																	
TANGENTIAL	358																	

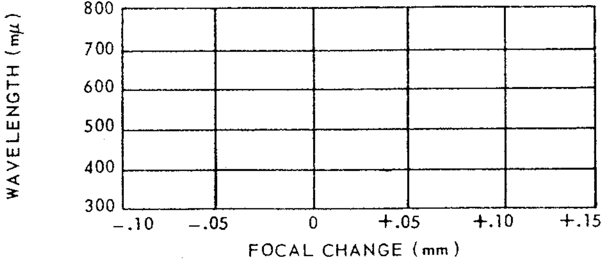
ASTIGMATISM AND CURVATURE OF FIELD



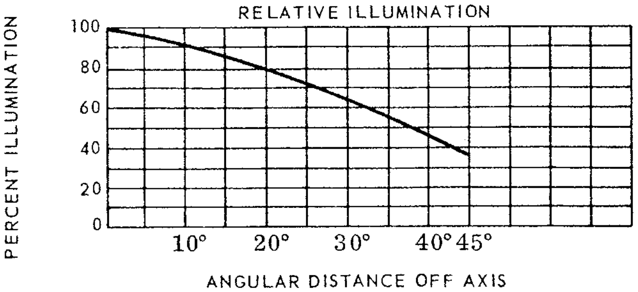
DISTORTION



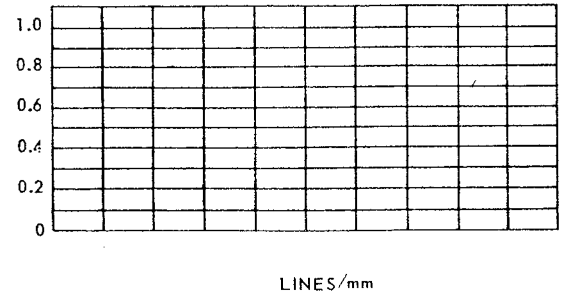
LONGITUDINAL CHROMATIC ABERRATION



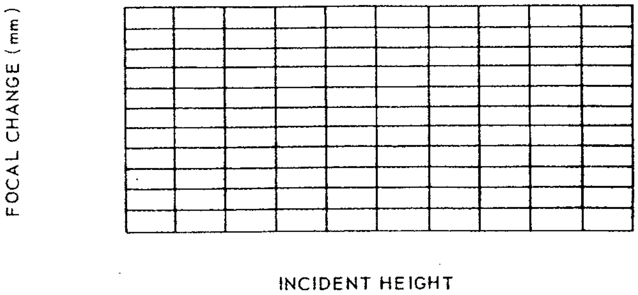
RELATIVE ILLUMINATION



FREQUENCY RESPONSE



SPHERICAL ABERRATION



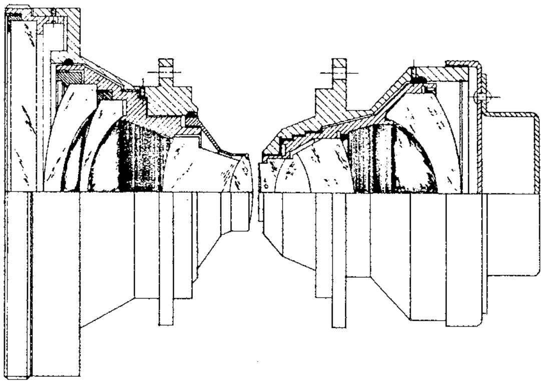
LENS DATA INFORMATION SHEET *(Reference MIL–STD–150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

TYPE (MIL–STD–150A) Type I Aerial Reconnaissance	NAME Viewgon

FOCAL LENGTH 3 in.	RELATIVE APERTURE f/4.5	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Viewlex, Inc.

STOCK NO.	SPECIFICATION NO.	STATUS

GENERAL DESCRIPTION



CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 3 in. (76.2 mm)	TRANSMITTANCE
BACK FOCAL DISTANCE 1.4 in.	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE 7.22 in.	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE 3.2 in.	LENS CELL DIAMETER *(Maximum)* 5.06 in.
SEMI–FIELD ANGLE 45°	OVERALL LENGTH 5.94 in.
RELATIVE APERTURE f/4.5	WEIGHT 4 lbs

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3 in.	f/4.5	4.5 in. x 4.5 in.	Viewlex, Inc.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)																		

FILM Aerial Panchromatic TARGET CONTRAST High FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR 32 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

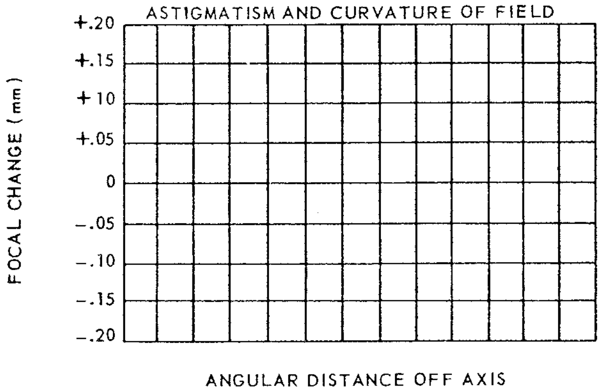
FILM ______ TARGET CONTRAST ______ FILTER ______

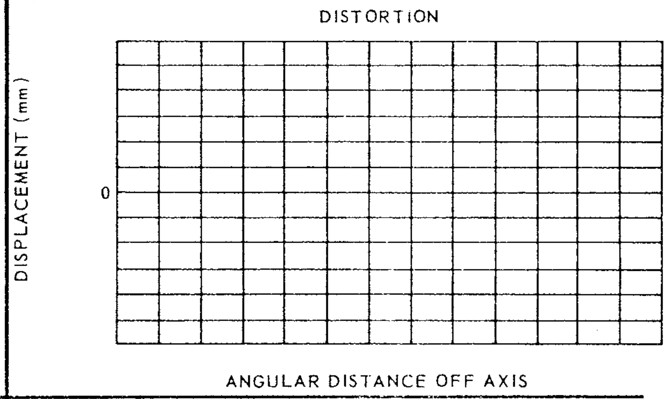
RADIAL																		
TANGENTIAL																		

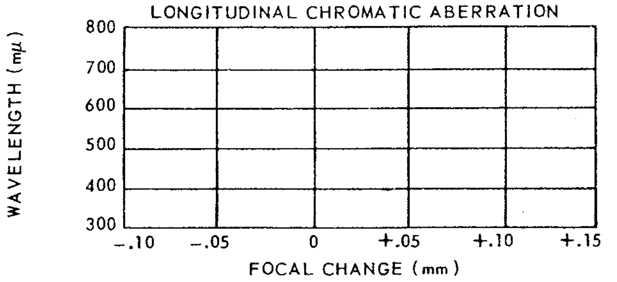
AWAR ______ L/mm

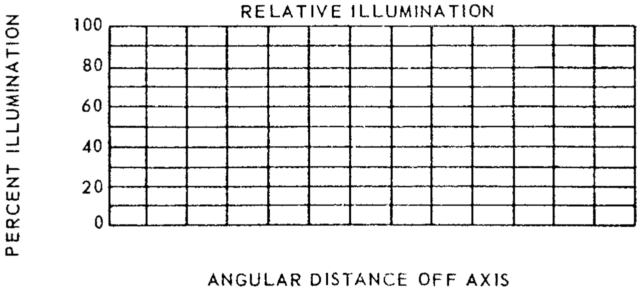
VISUAL ______ TARGET CONTRAST ______ FILTER ______

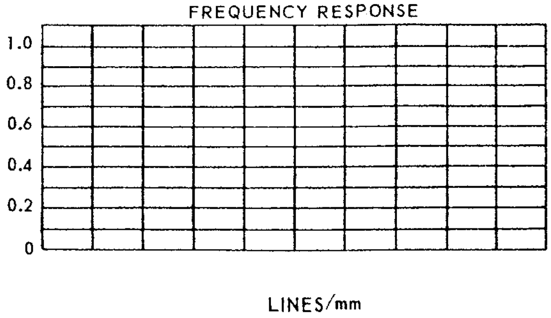
RADIAL																		
TANGENTIAL																		

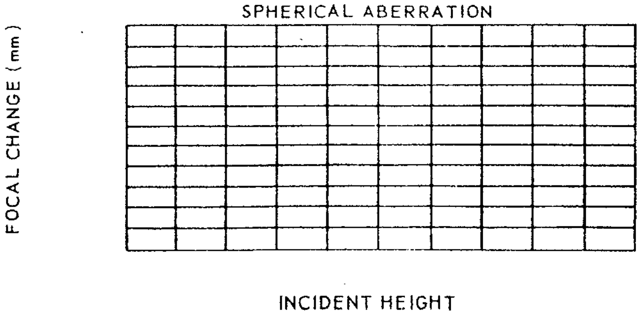

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

LENS DATA INFORMATION SHEET

(Reference MIL–STD–150A for definition of terms and methods of measurement)

DATE
15 Sept. 1967

TYPE (MIL–STD–150A)
Type I Aerial Reconnaissance

NAME
Metrogon

FOCAL LENGTH
3 in.

RELATIVE APERTURE
f/6.3

FORMAT
4.5 in. x 4.5 in.

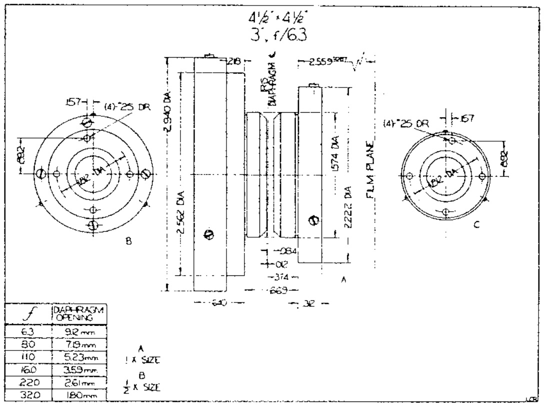
MANUFACTURER
Bausch & Lomb, Inc

STOCK NO.
Bausch & Lomb
P/N B6003-2

SPECIFICATION NO.

STATUS

GENERAL DESCRIPTION



f	DIAPHRAGM OPENING
6.3	9.12 mm
8.0	7.19 mm
11.0	5.23 mm
16.0	3.59 mm
22.0	2.61 mm
32.0	1.80 mm

CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 3 in. (76.3 mm)	TRANSMITTANCE
BACK FOCAL DISTANCE 2.37 in. (60.2 mm)	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE 2.56 in.	LENS CELL DIAMETER *(Maximum)* 2.562 in.
SEMI–FIELD ANGLE 45°	OVERALL LENGTH 1.62 in.
RELATIVE APERTURE f/6.3	WEIGHT

REMARKS:

Used on the following aircraft cameras: KA-18A

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
3 in.	f/6.3	4.5 in. x 4.5 in.	Bausch & Lomb, Inc.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25	30	35	40	45								

FILM Super XX TARGET CONTRAST High FILTER W-12

RADIAL	45	40	39	39	33	32	30	26	24	20								
TANGENTIAL	45	34	32	32	31	29	26	23	18	14								

AWAR 28 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

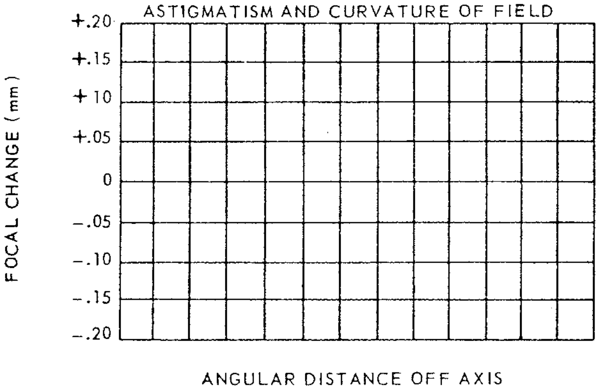
FILM ______ TARGET CONTRAST ______ FILTER ______

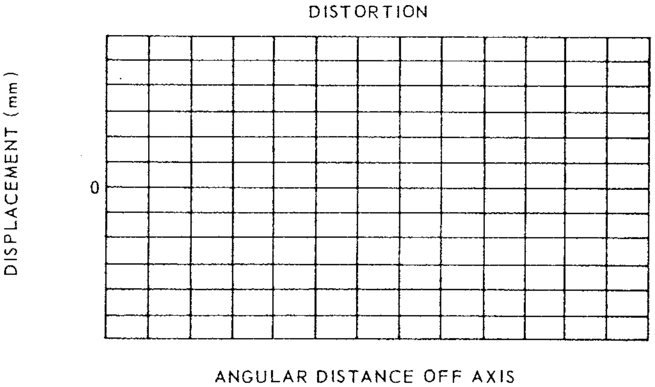
RADIAL																		
TANGENTIAL																		

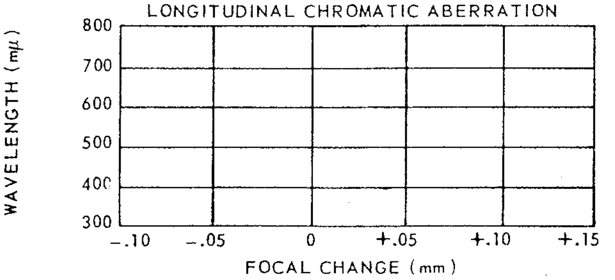
AWAR ______ L/mm

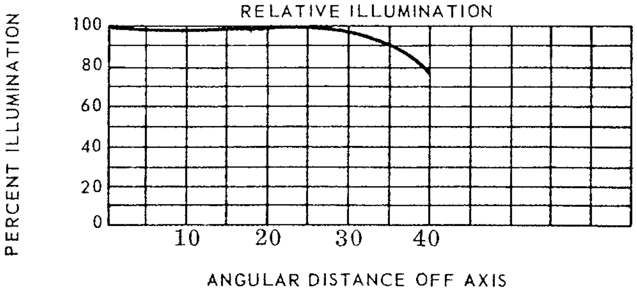
VISUAL ______ TARGET CONTRAST ______ FILTER ______

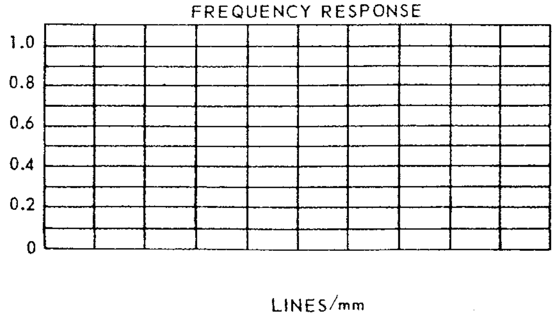
RADIAL																		
TANGENTIAL																		

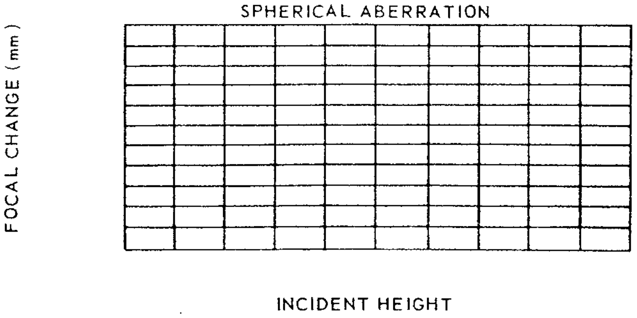

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

LENS DATA INFORMATION SHEET *(Reference MIL–STD–150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME Farron

FOCAL LENGTH 4 in. (105 mm)	RELATIVE APERTURE f/1.9	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Farrand Optical Co.

STOCK NO.	SPECIFICATION NO.	STATUS

GENERAL DESCRIPTION

CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 4 in. (105.61 mm)	TRANSMITTANCE 91% (T2.1)
BACK FOCAL DISTANCE 2.11 in. (53.81 mm)	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE	DISTORTION *(Maximum)* +.02 mm
FLANGE FOCAL DISTANCE	LENS CELL DIAMETER *(Maximum)*
SEMI-FIELD ANGLE 20°	OVERALL LENGTH
RELATIVE APERTURE f/1.9	WEIGHT

REMARKS:

FOCAL LENGTH 4 in. (105 mm)	RELATIVE APERTURE f/1.9	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Farrand Optical Co.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20													

FILM Super XX TARGET CONTRAST High FILTER W-12

RADIAL	40	40	35	40	29													
TANGENTIAL	36	36	32	31	32													

AWAR 34 L/mm

FILM TARGET CONTRAST FILTER

RADIAL																		
TANGENTIAL																		

AWAR L/mm

FILM TARGET CONTRAST FILTER

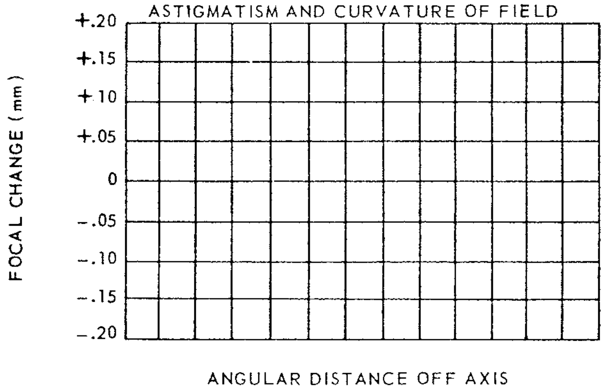
RADIAL																		
TANGENTIAL																		

AWAR L/mm

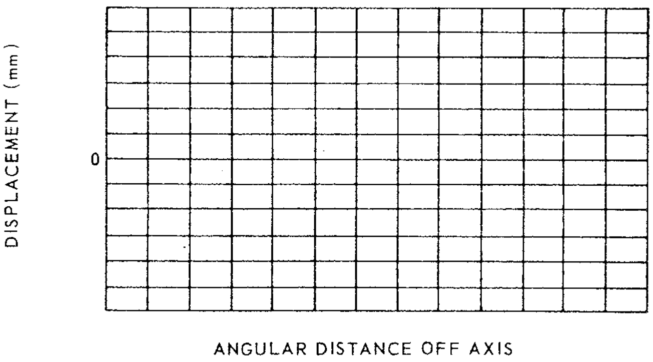
VISUAL TARGET CONTRAST FILTER

RADIAL																		
TANGENTIAL																		

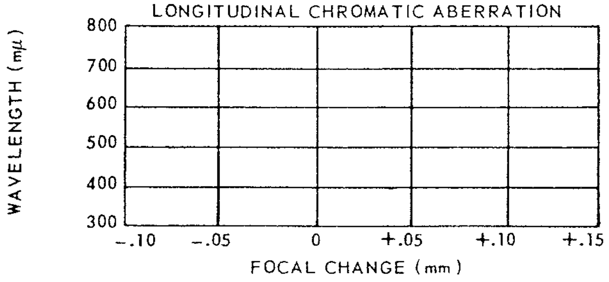
ASTIGMATISM AND CURVATURE OF FIELD



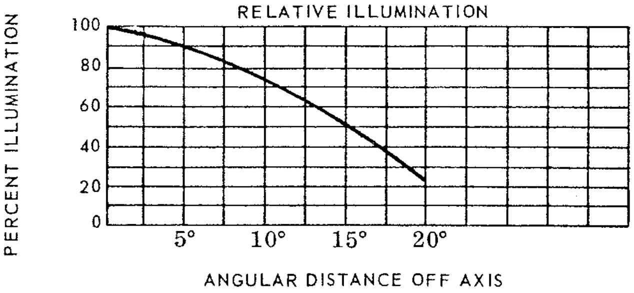
DISTORTION



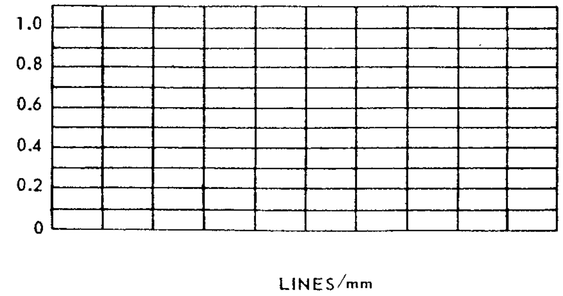
LONGITUDINAL CHROMATIC ABERRATION



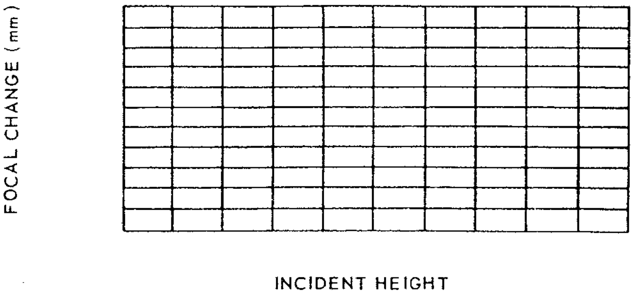
RELATIVE ILLUMINATION



FREQUENCY RESPONSE



SPHERICAL ABERRATION

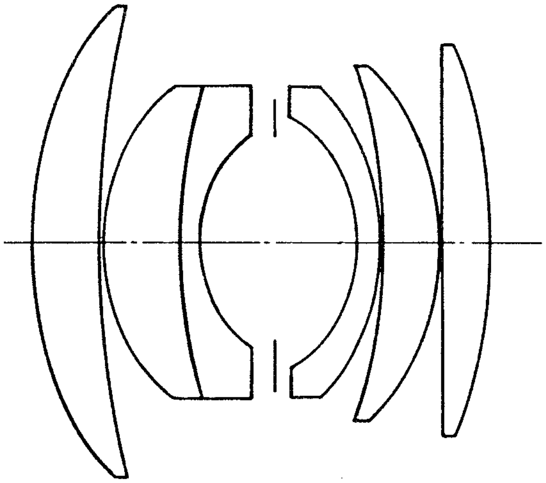


LENS DATA INFORMATION SHEET

(Reference MIL–STD–150A for definition of terms and methods of measurement)

DATE	15 Sept. 1967
TYPE (MIL-STD-150A)	Type I Aerial Reconnaissance
NAME	RECON 670
FOCAL LENGTH	6 in.
RELATIVE APERTURE	f/1.5
FORMAT	4.5 in. x 4.5 in.
MANUFACTURER	Perkin-Elmer Corp.
STOCK NO.	
SPECIFICATION NO.	
STATUS	Current

GENERAL DESCRIPTION



CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (152.4 mm)	TRANSMITTANCE 78%
BACK FOCAL DISTANCE 2.9 in. (73.5 mm)	COLOR CORRECTION 5461-6553 Å (Minus Blue)
FRONT VERTEX BACK FOCAL DISTANCE 8.23 in. (209 mm)	DISTORTION *(Maximum)* 0.5%
FLANGE FOCAL DISTANCE 5.982 in.	LENS CELL DIAMETER *(Maximum)* 7.18 in.
SEMI-FIELD ANGLE 28°	OVERALL LENGTH 5.125 in.
RELATIVE APERTURE f/1.5	WEIGHT 10 lbs. 12 oz.

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/1.5	4.5 in. x 4.5 in.	Perkin-Elmer Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25												

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL	40	44	37	29	32	20												
TANGENTIAL	40	34	37	33	18	14												

AWAR ______ L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

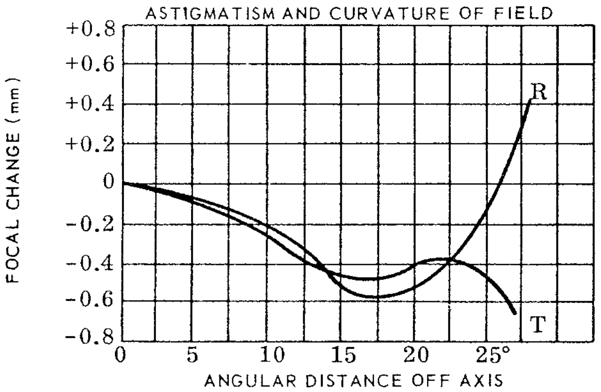
FILM ______ TARGET CONTRAST ______ FILTER ______

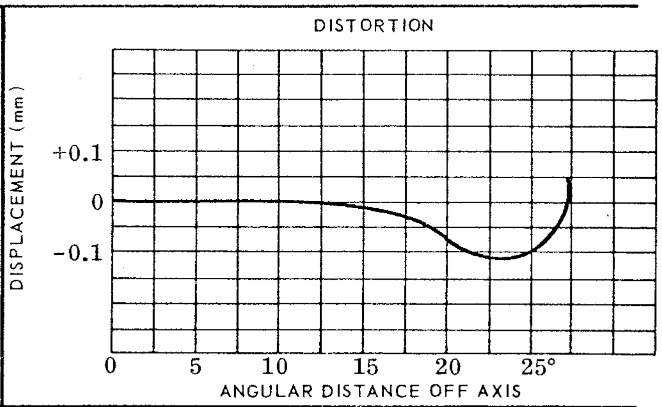
RADIAL																		
TANGENTIAL																		

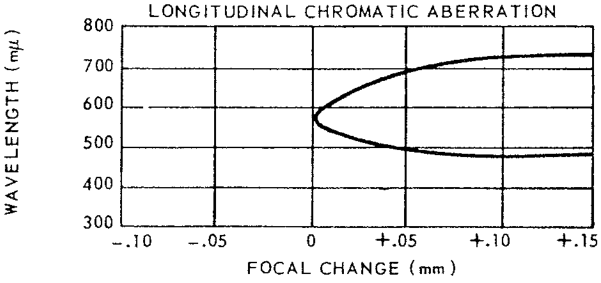
AWAR ______ L/mm

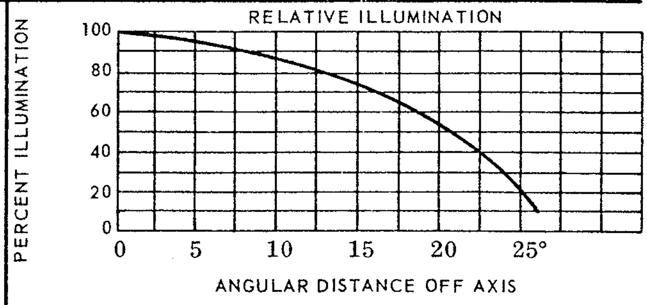
VISUAL ______ TARGET CONTRAST ______ FILTER ______

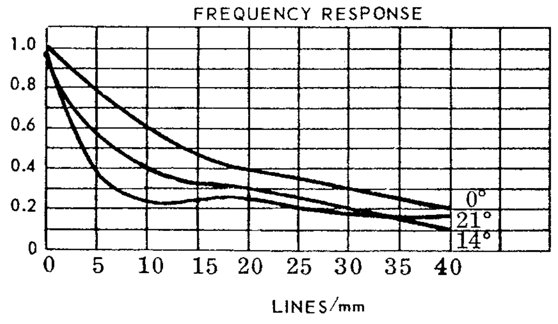
RADIAL																		
TANGENTIAL																		

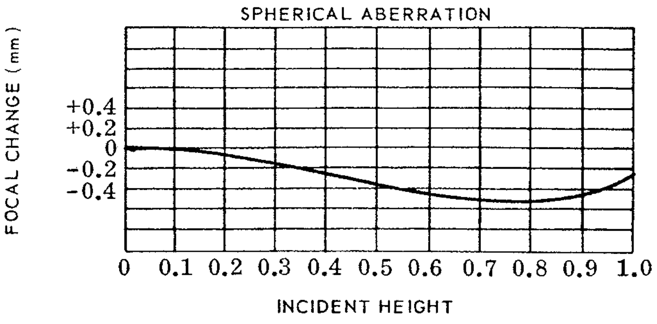

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

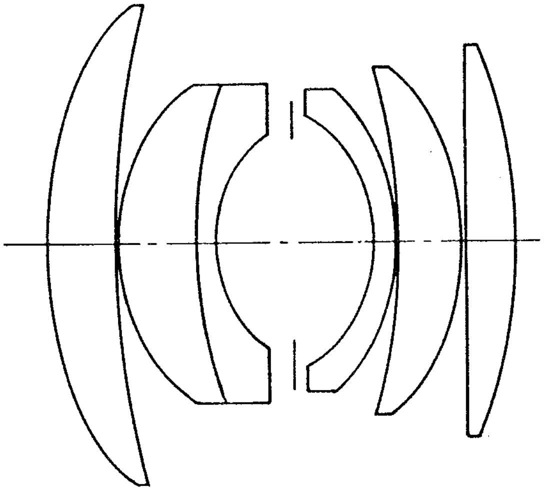
LENS DATA INFORMATION SHEET *(Reference MIL–STD–150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME RECON 671

FOCAL LENGTH 6 in.	RELATIVE APERTURE f/1.5	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Perkin-Elmer Corp.

STOCK NO.	SPECIFICATION NO.	STATUS Current

GENERAL DESCRIPTION



CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (152.4 mm)	TRANSMITTANCE
BACK FOCAL DISTANCE 2.78 in. (70.6 mm)	COLOR CORRECTION 7000-9000 Å
FRONT VERTEX BACK FOCAL DISTANCE 7.8 in. (198 mm)	DISTORTION *(Maximum)* 0.5%
FLANGE FOCAL DISTANCE 5.06 in. (142 mm)	LENS CELL DIAMETER *(Maximum)* 7.18 in. (182.3 mm)
SEMI-FIELD ANGLE 28°	OVERALL LENGTH 5.2 in. (131 mm)
RELATIVE APERTURE f/1.5	WEIGHT 10.7 lbs.

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/1.5	4.5 in. x 4.5 in.	Perkin-Elmer Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25												

FILM 5424 TARGET CONTRAST High FILTER 7.5 ND

RADIAL	26	25	35	34	38	17												
TANGENTIAL	26	27	33	33	33	22												

AWAR 32 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

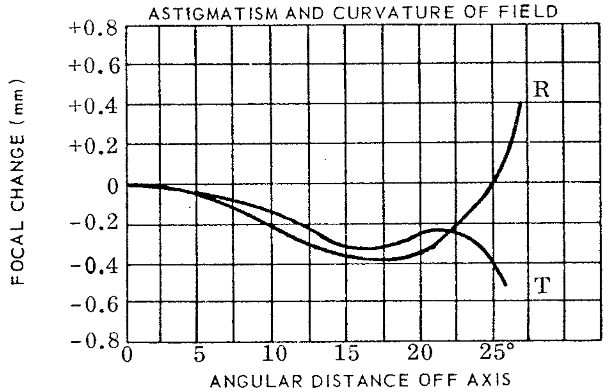
RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

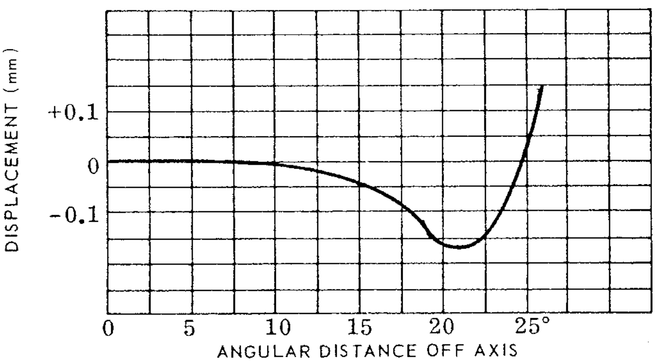
VISUAL ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

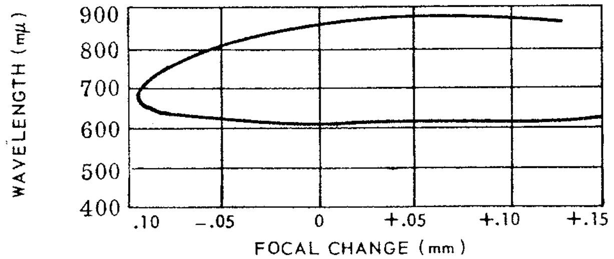
ASTIGMATISM AND CURVATURE OF FIELD



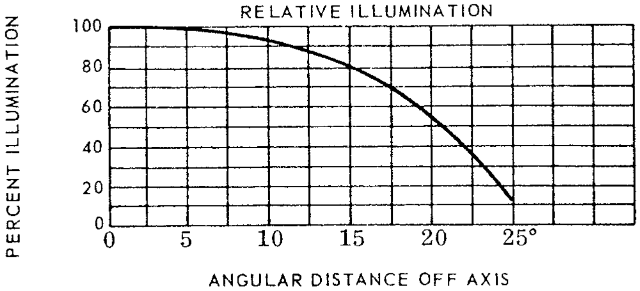
DISTORTION



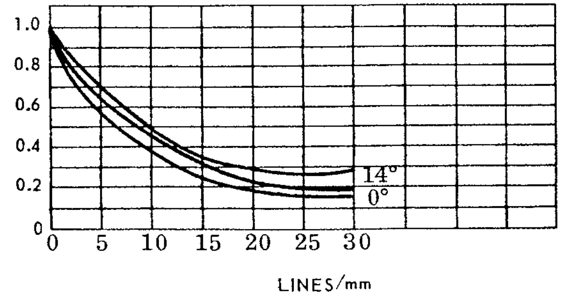
LONGITUDINAL CHROMATIC ABERRATION



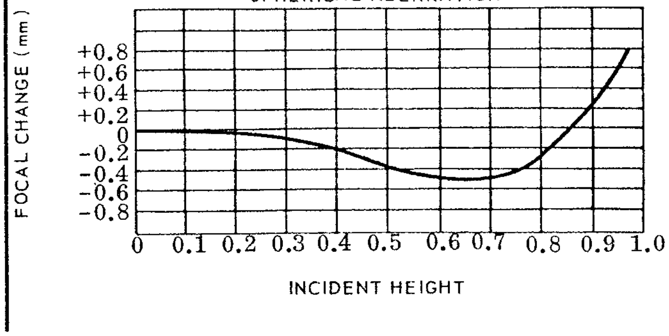
RELATIVE ILLUMINATION



FREQUENCY RESPONSE



SPHERICAL ABERRATION



LENS DATA INFORMATION SHEET

(Reference MIL-STD-150A for definition of terms and methods of measurement)

DATE
15 Sept. 1967

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME

FOCAL LENGTH 6 in.	RELATIVE APERTURE f/2.0	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Fairchild (Curtis)

STOCK NO.	SPECIFICATION NO.	STATUS

GENERAL DESCRIPTION

CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (152.4 mm)	TRANSMITTANCE 74% (T2.32)
BACK FOCAL DISTANCE 1 in. (25.32 mm)	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE	LENS CELL DIAMETER *(Maximum)*
SEMI-FIELD ANGLE 20°	OVERALL LENGTH
RELATIVE APERTURE f/2.0	WEIGHT

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/2.0	4.5 in. x 4.5 in.	Fairchild (Curtis)

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25												

f/2.0 FILM SO 1213 TARGET CONTRAST ____ FILTER ____

RADIAL	56	60	52	36	37	19												
TANGENTIAL	56	60	56	50	40	26												

AWAR 38 L/mm

f/5.6 FILM SO 1213 TARGET CONTRAST ____ FILTER ____

RADIAL	99	131	49	30	30	32												
TANGENTIAL	99	131	89	33	25	34												

AWAR 42 L/mm

f/2.0 FILM Plus X Aerecon TARGET CONTRAST ____ FILTER ____

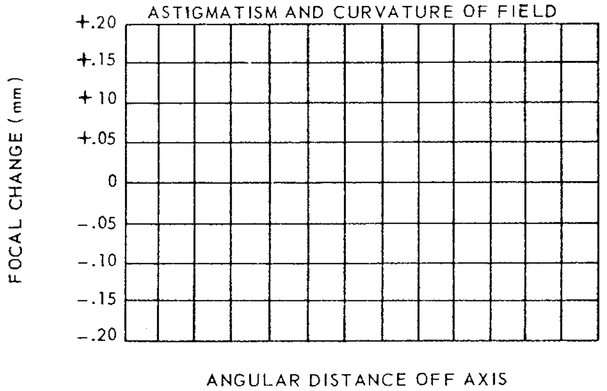
RADIAL	35	39	43	27	26	17												
TANGENTIAL	35	39	37	34	26	19												

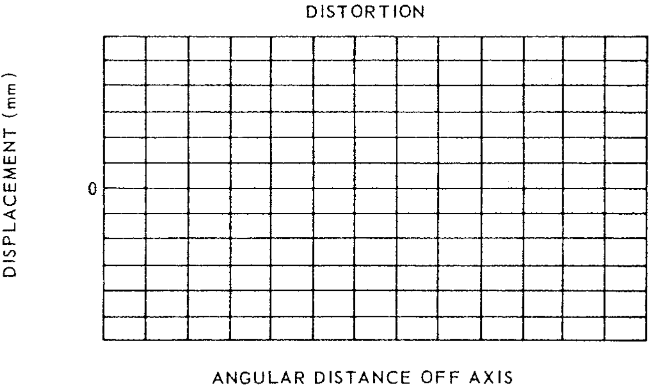
AWAR 27 L/mm

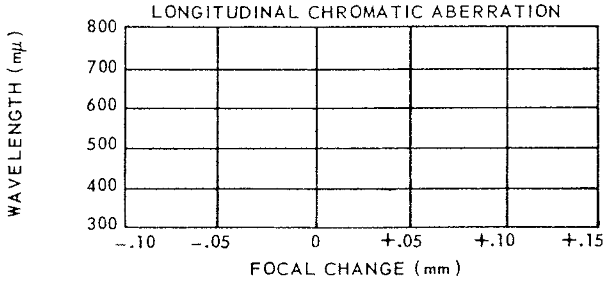
f/5.6 FILM Plus X Aerecon TARGET CONTRAST ____ FILTER ____

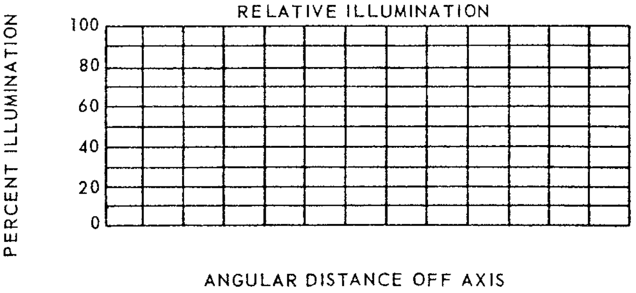
RADIAL	49	71	40	27	23	25												
TANGENTIAL	49	71	53	29	25	26												

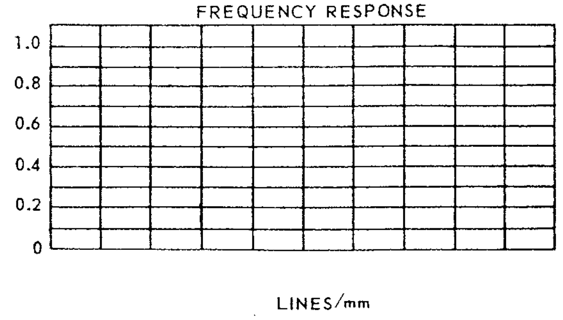
AWAR 30 L/mm

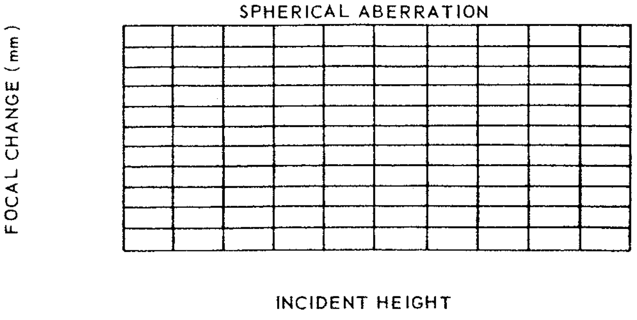

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

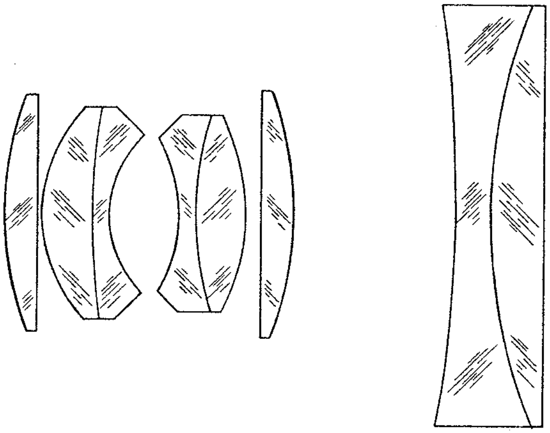
LENS DATA INFORMATION SHEET *(Reference MIL-STD-150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME Aero Raptar

FOCAL LENGTH 6 in.	RELATIVE APERTURE f/2.0	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER 3M-Wollensak

STOCK NO.	SPECIFICATION NO.	STATUS Development

GENERAL DESCRIPTION



CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (156.16 mm)	TRANSMITTANCE
BACK FOCAL DISTANCE 1.20 in. (30.65 mm)	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE 8.27 in. (210.3 mm)	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE	LENS CELL DIAMETER *(Maximum)* 5.59 in. (142 mm)
SEMI-FIELD ANGLE 27.5°	OVERALL LENGTH 7.05 in. (179.7 mm)
RELATIVE APERTURE f/2.0	WEIGHT

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/2.0	4.5 in. x 4.5 in.	3M-Wollensak

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25												

FILM Super XX TARGET CONTRAST High FILTER W-12

RADIAL	39	42	25	17	22	19													AWAR
TANGENTIAL	49	30	25	22	27	17													22 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

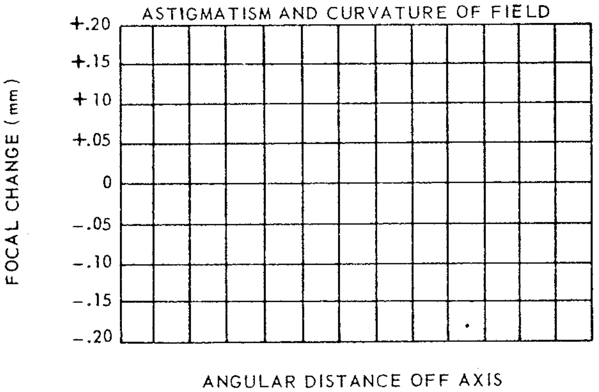
RADIAL																			AWAR
TANGENTIAL																			______ L/mm

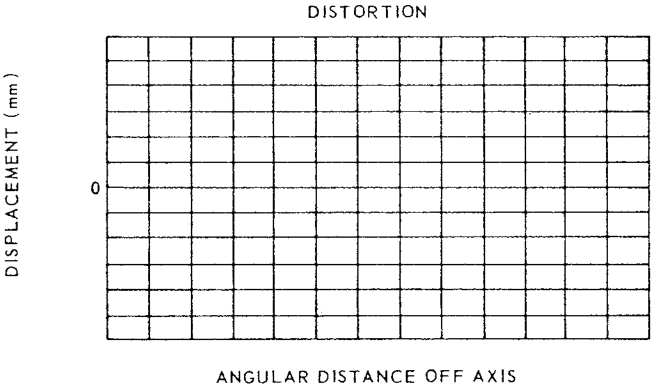
FILM ______ TARGET CONTRAST ______ FILTER ______

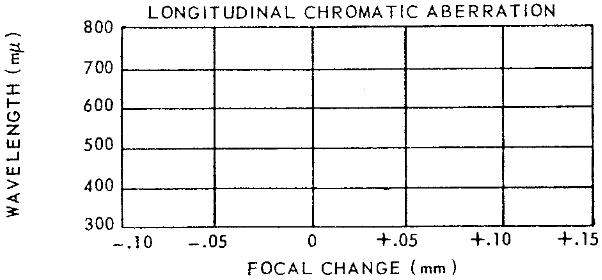
RADIAL																			AWAR
TANGENTIAL																			______ L/mm

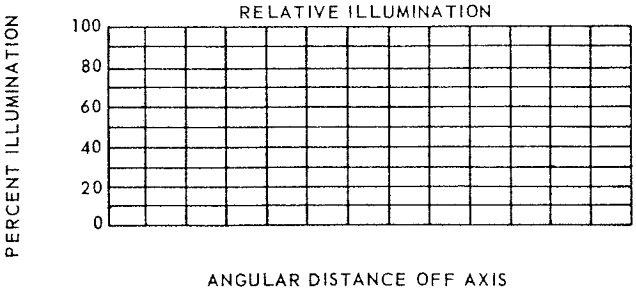
VISUAL ______ TARGET CONTRAST ______ FILTER ______

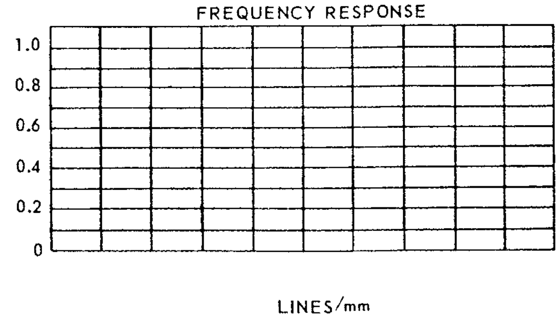
RADIAL																		
TANGENTIAL																		

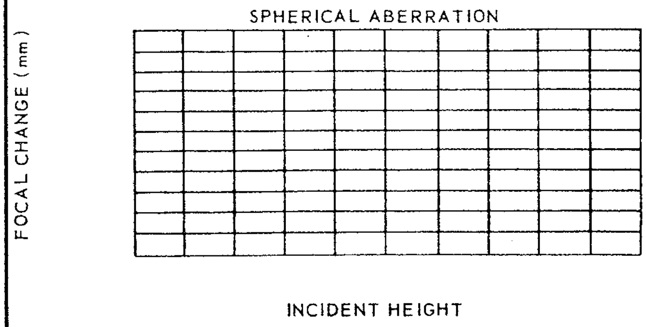

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

LENS DATA INFORMATION SHEET *(Reference MIL–STD–150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME Supergor

FOCAL LENGTH 6 in.	RELATIVE APERTURE f/2.3	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Goerz Optical Co., Inc.

STOCK NO.	SPECIFICATION NO.	STATUS

GENERAL DESCRIPTION

CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in.	TRANSMITTANCE 78%
BACK FOCAL DISTANCE 3.938 in.	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE 7.487 in.	DISTORTION *(Maximum)* 1.35 mm
FLANGE FOCAL DISTANCE 4.610 in.	LENS CELL DIAMETER *(Maximum)*
SEMI-FIELD ANGLE 27.5°	OVERALL LENGTH 2.466 in.
RELATIVE APERTURE f/2.3	WEIGHT

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/2.3	4.5 in. x 4.5 in.	Goerz Optical Co., Inc.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25	27.5											

FILM Super XX TARGET CONTRAST High FILTER

RADIAL	28	35	32	22	18	18	21											
TANGENTIAL	35	34	29	30	25	11	7											

AWAR 25 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

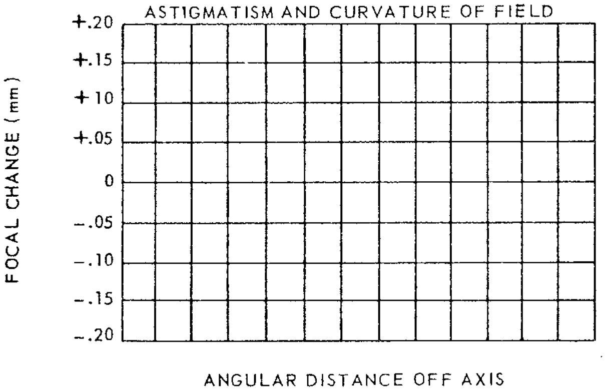
FILM ______ TARGET CONTRAST ______ FILTER ______

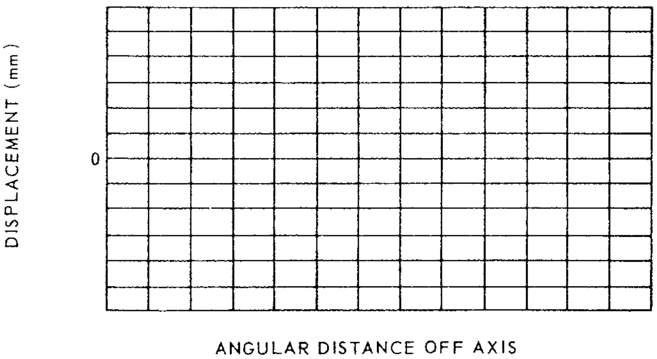
RADIAL																		
TANGENTIAL																		

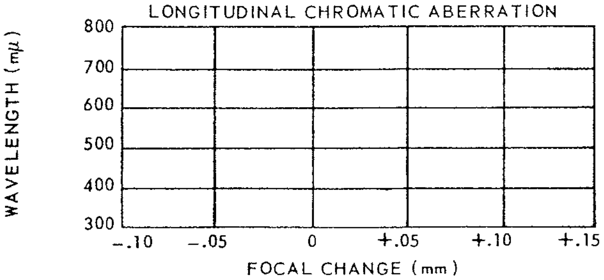
AWAR ______ L/mm

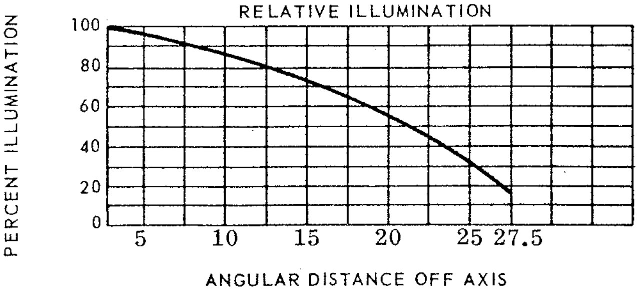
VISUAL ______ TARGET CONTRAST ______ FILTER ______

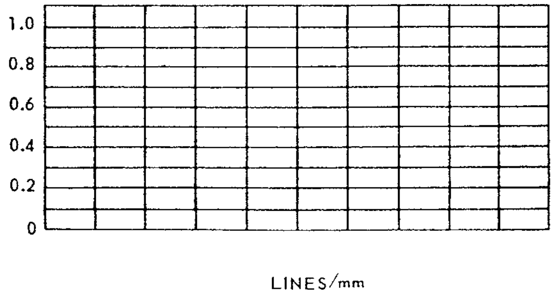
RADIAL																		
TANGENTIAL																		

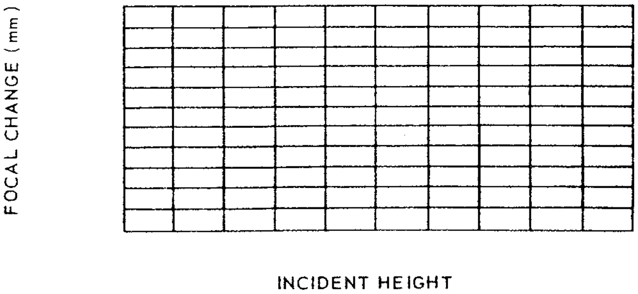

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

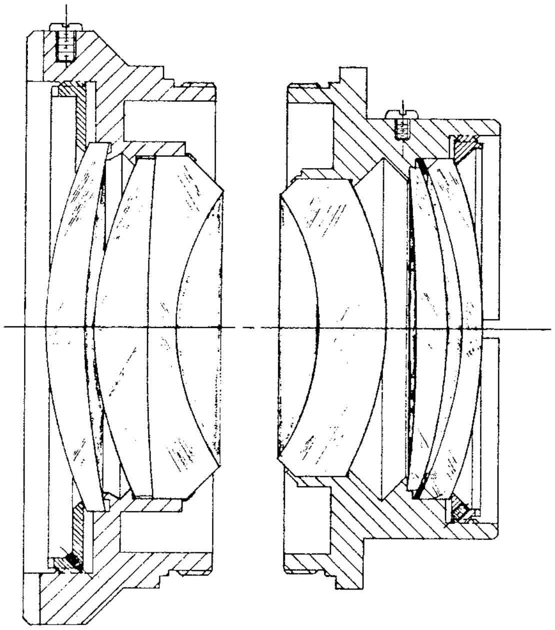
LENS DATA INFORMATION SHEET *(Reference MIL–STD–150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

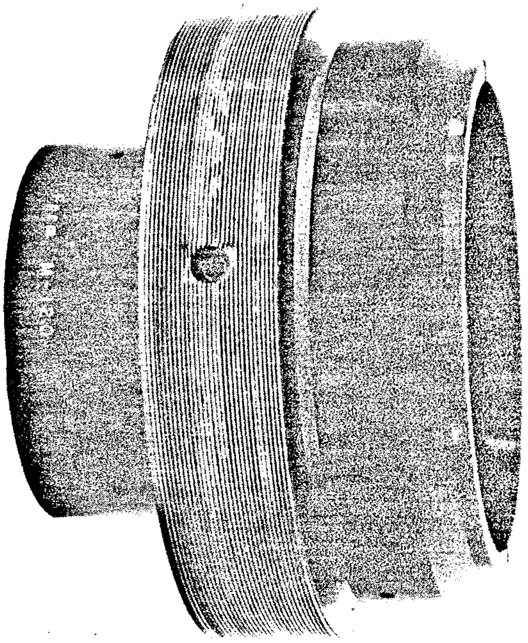
TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME Aero Ektar

FOCAL LENGTH 6 in.	RELATIVE APERTURE f/2.5	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Eastman Kodak Co.

STOCK NO. Eastman Kodak P/N 806150	SPECIFICATION NO.	STATUS Special Order

GENERAL DESCRIPTION





CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (152.76 mm)	TRANSMITTANCE 90%
BACK FOCAL DISTANCE 4.44 in. (112.98 mm)	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE 7.516 in.	DISTORTION *(Maximum)* .03 mm
FLANGE FOCAL DISTANCE 5.472 in.	LENS CELL DIAMETER *(Maximum)* 4.210 in.
SEMI-FIELD ANGLE 27.5°	OVERALL LENGTH 3.346 in.
RELATIVE APERTURE f/2.5	WEIGHT

REMARKS:

Used on the following aircraft cameras: KA-28, KA-9A, KA-18A

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/2.5	4.5 in. x 4.5 in.	Eastman Kodak Co.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25	27.5											

FILM Super XX TARGET CONTRAST High FILTER W-12

AVERAGE RADIAL AND TANGENTIAL	28	25	22	14	14	12	5											

AWAR ____ L/mm

FILM ____ TARGET CONTRAST ____ FILTER ____

AVERAGE RADIAL AND TANGENTIAL																		

AWAR ____ L/mm

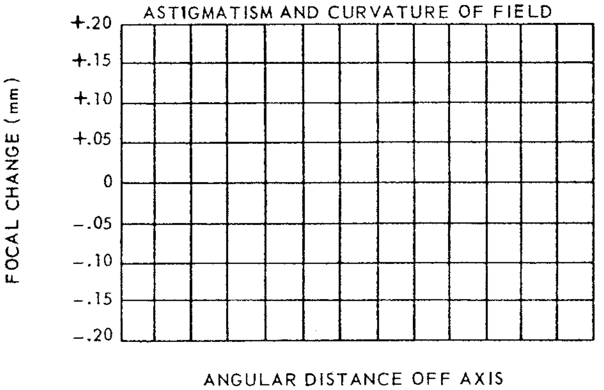
FILM ____ TARGET CONTRAST ____ FILTER ____

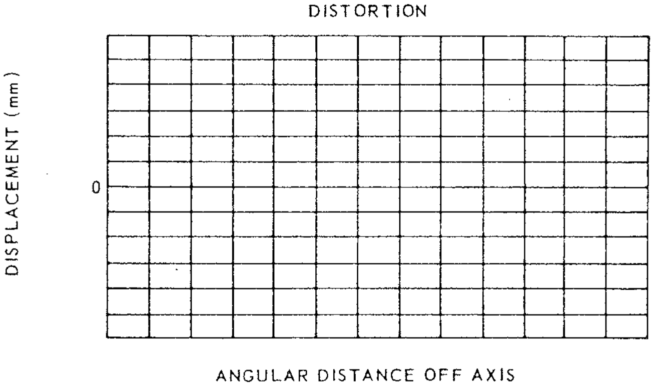
AVERAGE RADIAL AND TANGENTIAL																		

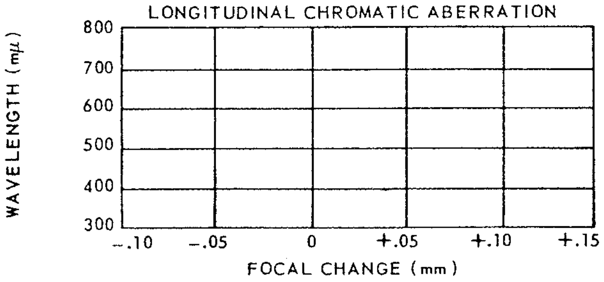
AWAR ____ L/mm

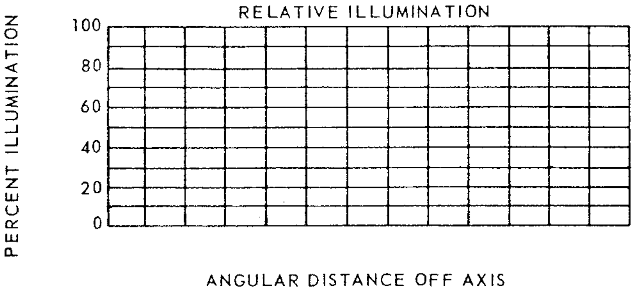
VISUAL ____ TARGET CONTRAST ____ FILTER ____

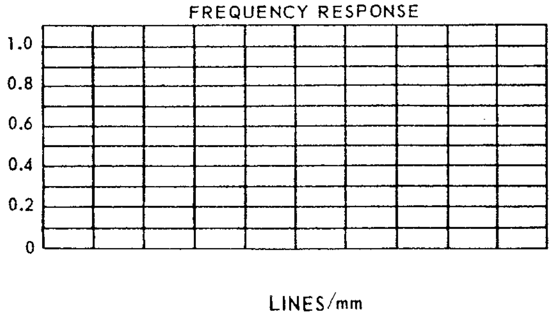
RADIAL																		
TANGENTIAL																		

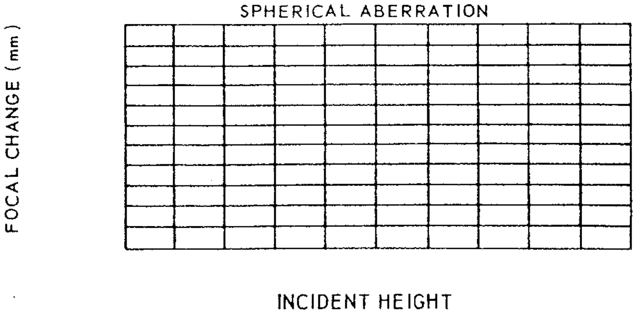












LENS DATA INFORMATION SHEET

(Reference MIL–STD–150A for definition of terms and methods of measurement)

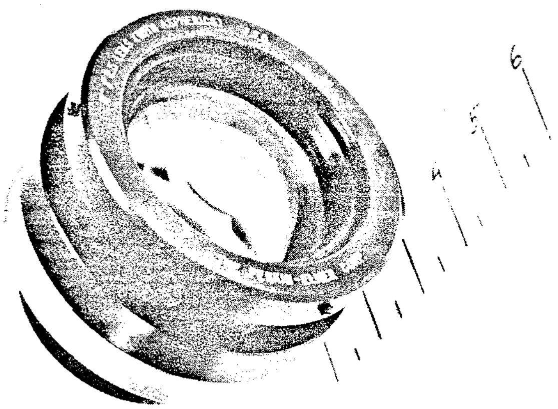
DATE
15 Sept. 1967

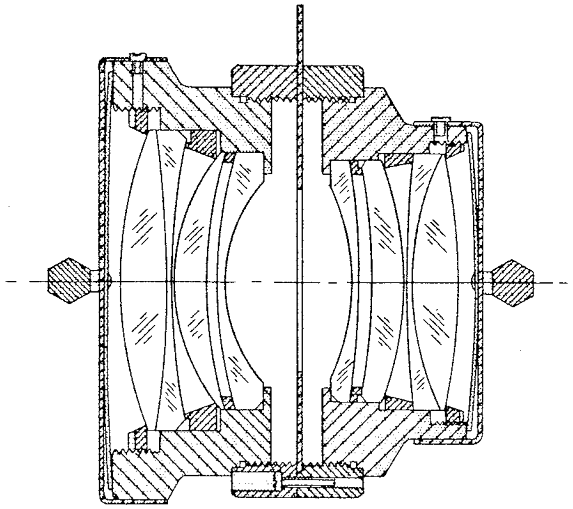
TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME Aspheric

FOCAL LENGTH 6 in.	RELATIVE APERTURE f/2.5	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Perkin-Elmer Corp.

STOCK NO.	SPECIFICATION NO.	STATUS

GENERAL DESCRIPTION





CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (152.4 mm)	TRANSMITTANCE 83%
BACK FOCAL DISTANCE 4.22 in.	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE 5.13 in.	LENS CELL DIAMETER *(Maximum)* 4.21 in.
SEMI-FIELD ANGLE 28°	OVERALL LENGTH 3.53 in.
RELATIVE APERTURE f/2.5	WEIGHT

REMARKS:

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/2.5	4.5 in. x 4.5 in.	Perkin-Elmer Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25												

FILM Super XX TARGET CONTRAST ______ FILTER ______

RADIAL	28	32	39	22	20	16												
TANGENTIAL	28	34	39	16	24	14												

AWAR 26 L/mm

FILM ______ TARGET CONTRAST ______ FILTER ______

RADIAL																		
TANGENTIAL																		

AWAR ______ L/mm

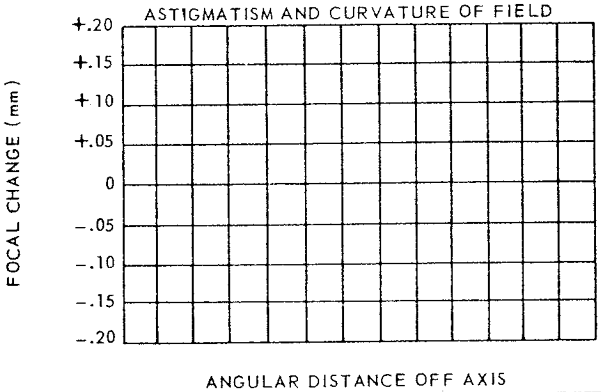
FILM ______ TARGET CONTRAST ______ FILTER ______

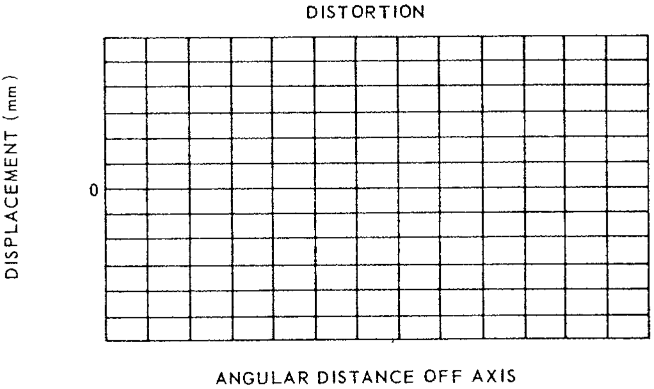
RADIAL																		
TANGENTIAL																		

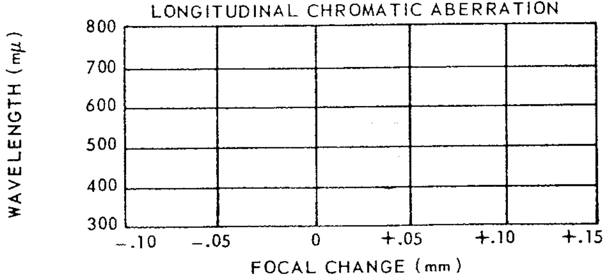
AWAR ______ L/mm

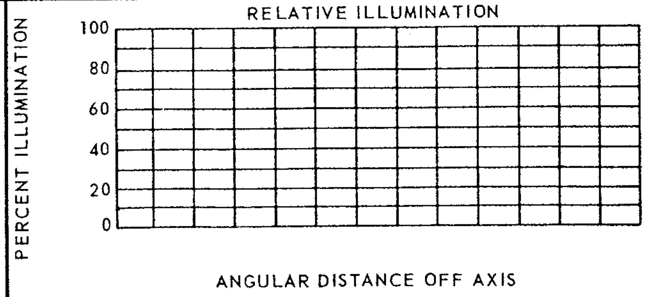
VISUAL ______ TARGET CONTRAST ______ FILTER ______

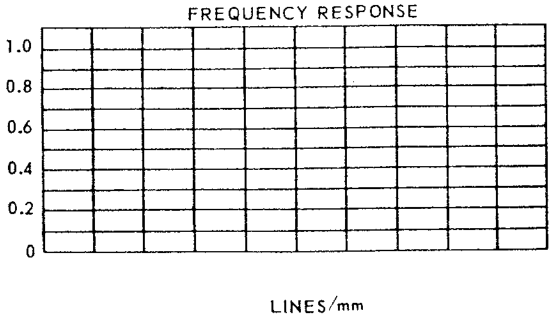
RADIAL																		
TANGENTIAL																		

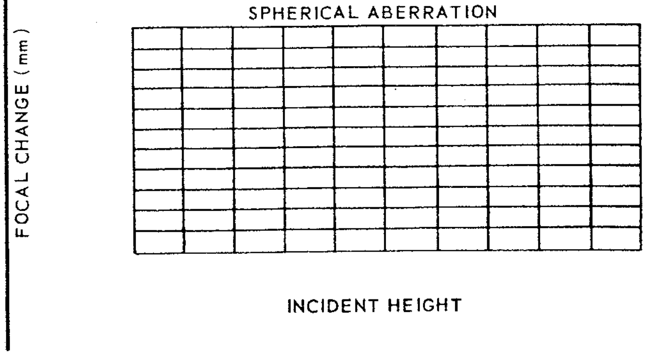

ASTIGMATISM AND CURVATURE OF FIELD


DISTORTION


LONGITUDINAL CHROMATIC ABERRATION


RELATIVE ILLUMINATION


FREQUENCY RESPONSE


SPHERICAL ABERRATION

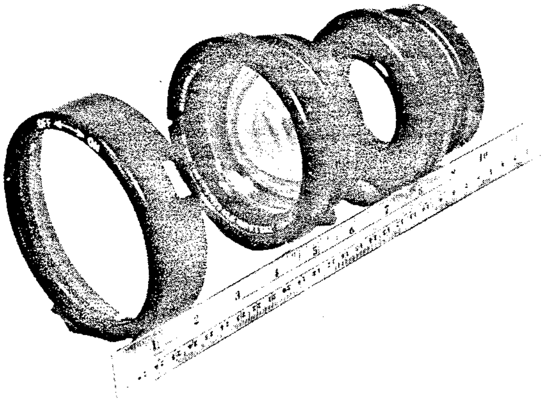
LENS DATA INFORMATION SHEET *(Reference MIL–STD–150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

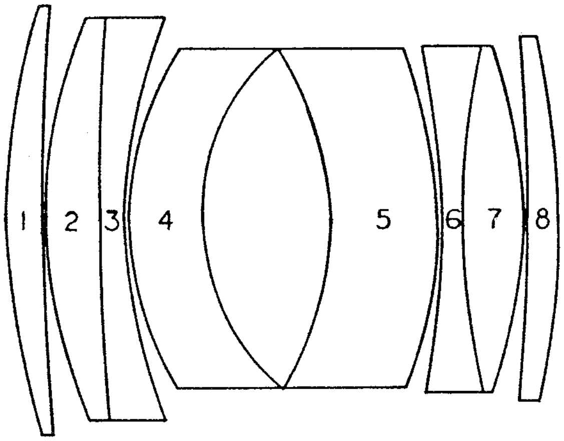
TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME

FOCAL LENGTH 6 in.	RELATIVE APERTURE f/2.5	FORMAT 4.5 in. Strip	MANUFACTURER Bell and Howell Co.

STOCK NO.	SPECIFICATION NO.	STATUS

GENERAL DESCRIPTION





CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (153.8 mm)	TRANSMITTANCE
BACK FOCAL DISTANCE 4.492 in.	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE	LENS CELL DIAMETER *(Maximum)*
SEMI-FIELD ANGLE 27.5°	OVERALL LENGTH
RELATIVE APERTURE f/2.5	WEIGHT

REMARKS:

Used on the following aircraft camera: KA-18A

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/2.5	4.5 in. Strip	Bell and Howell Co.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25	27.5											

FILM Super X TARGET CONTRAST ____ FILTER W-12

RADIAL	34	34	26	16	18	22	5											
TANGENTIAL	43	30	37	32	30	19	12											

AWAR 25 L/mm

FILM IR TARGET CONTRAST ____ FILTER ____

RADIAL	34	38	23	14	16	24												
TANGENTIAL	34	24	26	22	21	15												

AWAR 21 L/mm

FILM ____ TARGET CONTRAST ____ FILTER ____

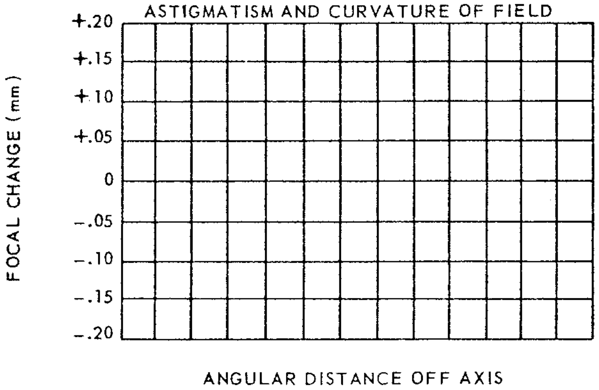
RADIAL																		
TANGENTIAL																		

AWAR ____ L/mm

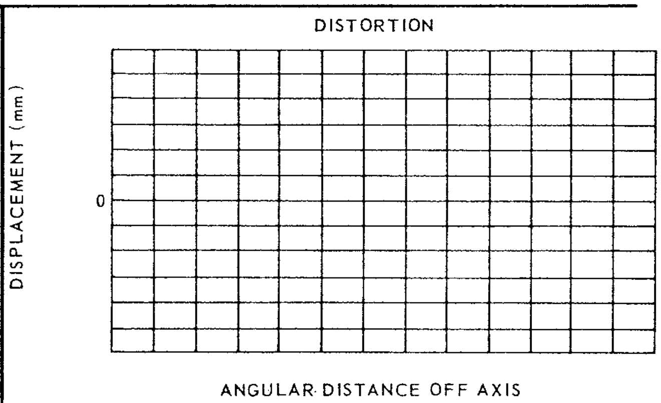
VISUAL ____ TARGET CONTRAST ____ FILTER ____

RADIAL																		
TANGENTIAL																		

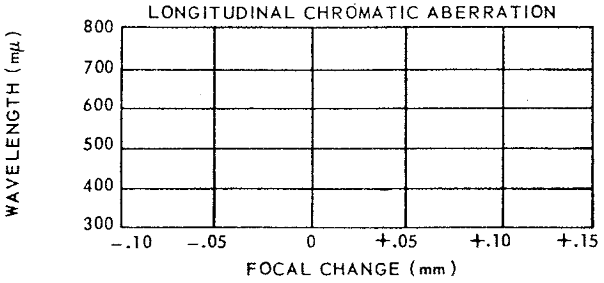
ASTIGMATISM AND CURVATURE OF FIELD



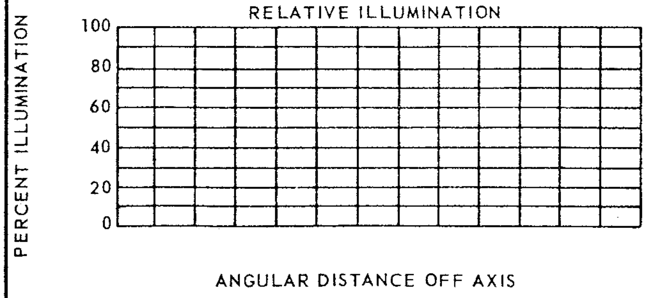
DISTORTION



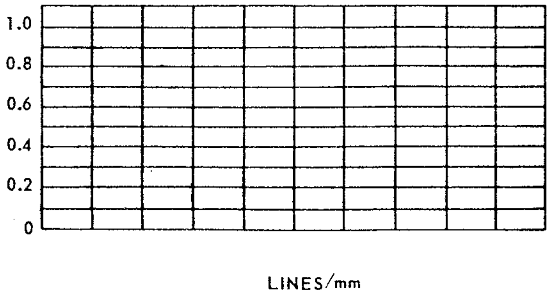
LONGITUDINAL CHROMATIC ABERRATION



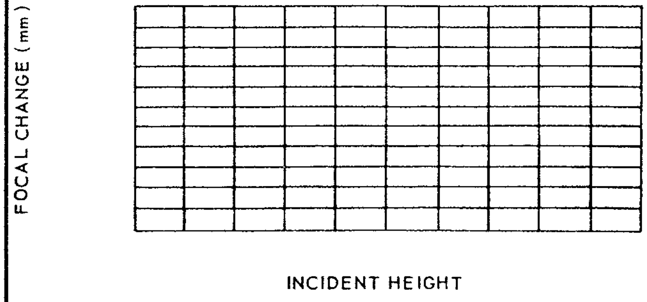
RELATIVE ILLUMINATION



FREQUENCY RESPONSE



SPHERICAL ABERRATION



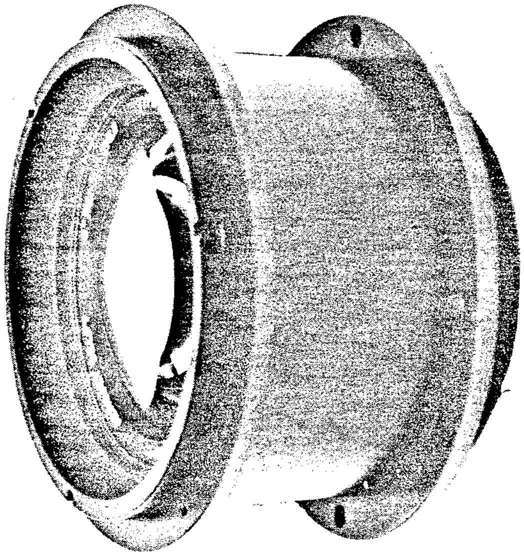
LENS DATA INFORMATION SHEET *(Reference MIL-STD-150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

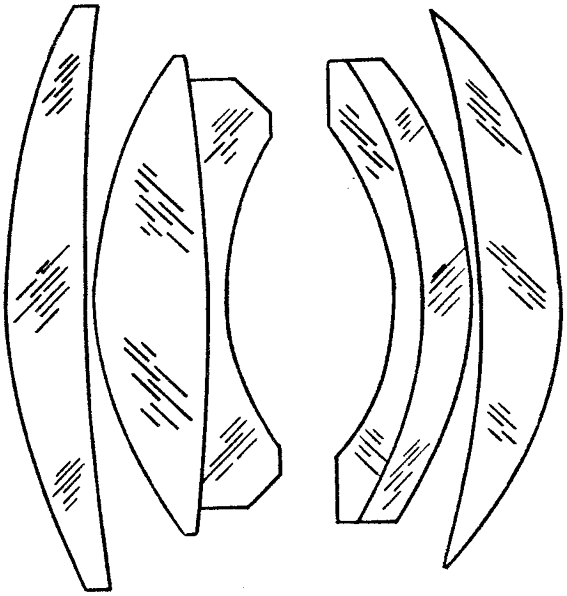
TYPE (MIL-STD-150A) Type I Aerial Reconnaissance	NAME Deltamar

FOCAL LENGTH 6 in.	RELATIVE APERTURE f/2.8	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Aerojet Delft Corp.

STOCK NO. Aerojet Delft P/N 40AG	SPECIFICATION NO.	STATUS Production

GENERAL DESCRIPTION





CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (149.4 mm)	TRANSMITTANCE 82%
BACK FOCAL DISTANCE 4.426 in.	COLOR CORRECTION 4900-7000Å
FRONT VERTEX BACK FOCAL DISTANCE 7.683 in.	DISTORTION *(Maximum)* .7%
FLANGE FOCAL DISTANCE 5.131 in.	LENS CELL DIAMETER *(Maximum)* 4.50 in.
SEMI-FIELD ANGLE 28°	OVERALL LENGTH 8.150 in.
RELATIVE APERTURE f/2.8	WEIGHT 1.9 lbs

REMARKS:

Used on the following aircraft cameras: KS-72

FOCAL LENGTH	RELATIVE APERTURE	FORMAT	MANUFACTURER
6 in.	f/2.8	4.5 in. x 4.5 in.	Aerojet Delft Corp.

Photographic Resolving Power in Lines /mm

FIELD ANGLE (°)	0	5	10	15	20	25												

FILM Plus X Aerecon TARGET CONTRAST High FILTER W-12

RADIAL	47	47	59	61	56	36												
TANGENTIAL	42	37	43	52	52	41												

AWAR 52 L/mm

FILM Panatomic X TARGET CONTRAST FILTER

RADIAL	75	67	84	68	70	36												
TANGENTIAL	67	66	65	66	56	41												

AWAR 70 L/mm

FILM TARGET CONTRAST FILTER

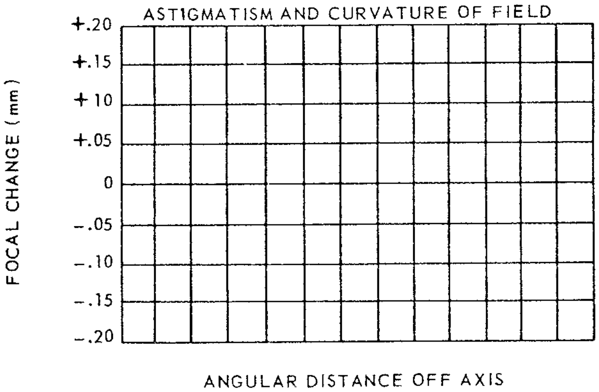
RADIAL																		
TANGENTIAL																		

AWAR L/mm

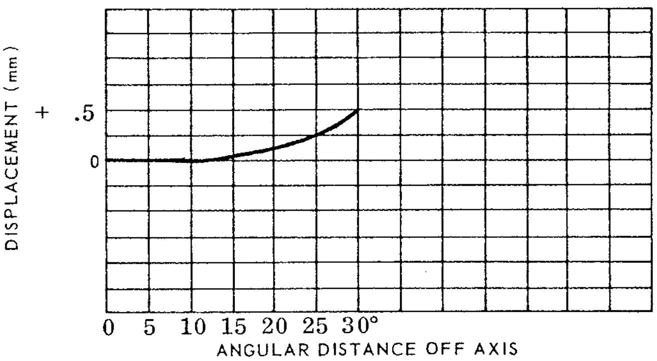
VISUAL TARGET CONTRAST FILTER

RADIAL																		
TANGENTIAL																		

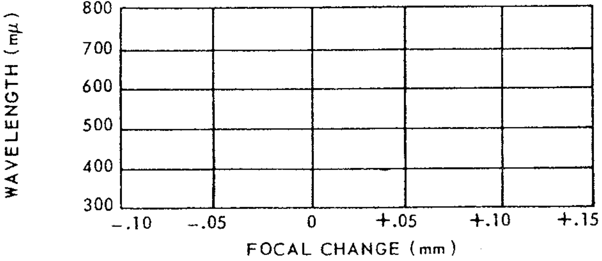
ASTIGMATISM AND CURVATURE OF FIELD



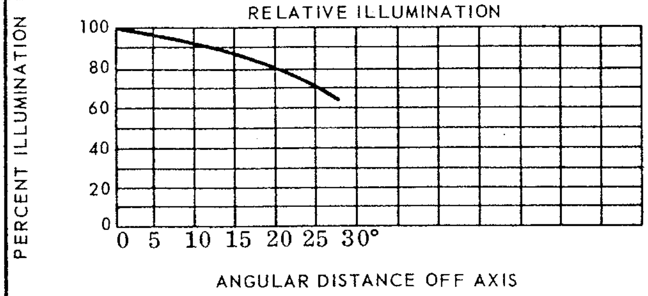
DISTORTION



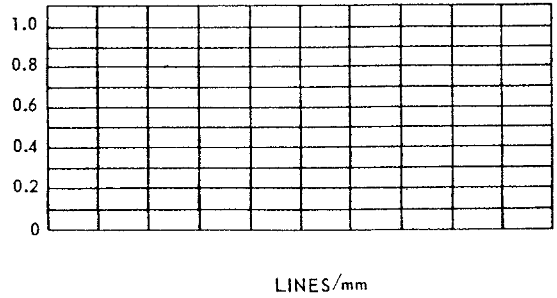
LONGITUDINAL CHROMATIC ABERRATION



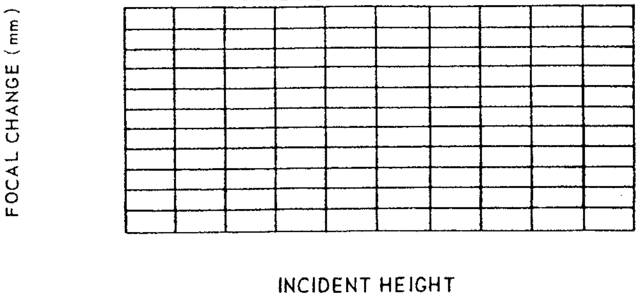
RELATIVE ILLUMINATION



FREQUENCY RESPONSE



SPHERICAL ABERRATION

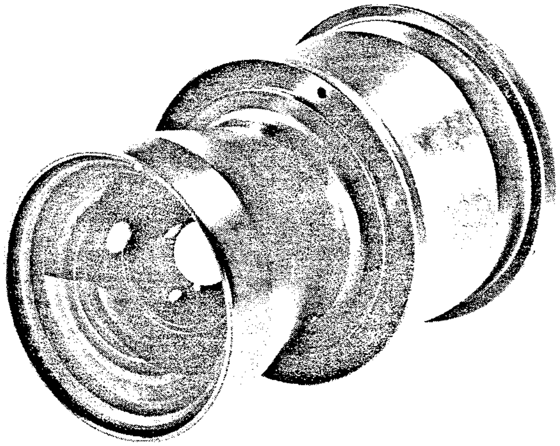


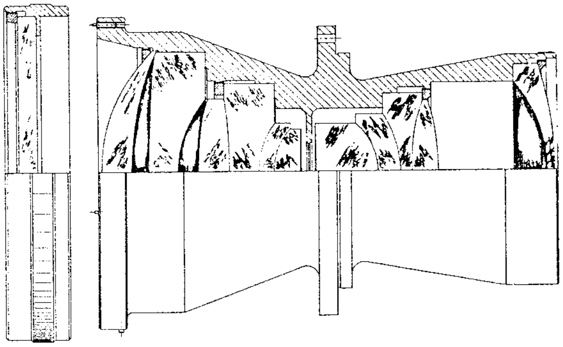
LENS DATA INFORMATION SHEET *(Reference MIL–STD–150A for definition of terms and methods of measurement)*	DATE 15 Sept. 1967

TYPE (MIL-STD-150A) Type I Aerial Reconnaissance		NAME	
FOCAL LENGTH 6 in.	RELATIVE APERTURE f/2.8	FORMAT 4.5 in. x 4.5 in.	MANUFACTURER Fairchild Space & Defense Systems, El Segundo

STOCK NO. Fairchild P/N 119-100	SPECIFICATION NO.	STATUS Production

GENERAL DESCRIPTION





CHARACTERISTICS

EQUIVALENT FOCAL LENGTH 6 in. (152.4 mm)	TRANSMITTANCE
BACK FOCAL DISTANCE .3129 in.	COLOR CORRECTION
FRONT VERTEX BACK FOCAL DISTANCE 12.85 in.	DISTORTION *(Maximum)*
FLANGE FOCAL DISTANCE 6.31 in.	LENS CELL DIAMETER *(Maximum)* 9.31 in.
SEMI-FIELD ANGLE 25°	OVERALL LENGTH 13.6 in.
RELATIVE APERTURE f/2.8	WEIGHT

REMARKS: